DOCUMENT RESUME

ED 055 225	VT 013 973
AUTHOR	Peterson, Marla; And Others
TITLE	The OCCUPAC Project (A Project to Develop Occupational Information Learning Activity Packages for Grades K-9). Final Report.
INSTITUTION	Eastern Illinois Univ., Charleston. Center for Educational Studies.
SPONS AGENCY	Illinois State Board of Vocational Education and Rehabilitation, Springfield. Vocational and Technical Education Div.
PUB DATE	Jun 71
NOTE	453p.
EDRS PRICE	MF-$0.65 HC-$16.45
DESCRIPTORS	Audiovisual Instruction; *Career Education; Elementary School Curriculum; *Individualized Instruction; Junior High Schools; *Learning Activities; *Multimedia Instruction; *Occupational Information; Simulation; Vocational Development
IDENTIFIERS	Career Development; Occupational Exploration; *Project OCCUPACS

ABSTRACT

During Phase I of a two-phase project, 15 OCCUPACS (learning activity packages) were developed, pilot tested in a university laboratory school, field tested in four public school systems, revised, and submitted to professionals for final review. Intended to provide occupational information to children in Grades K-9 at different levels of difficulty, each OCCUPAC contains multi-media materials in the form of slides, tapes, equipment, and materials used in different occupations, decision-making simulation activities, and other props. Some recommendations resulting from Phase I activities are: (1) Students seem to prefer using the OCCUPACS on an individual or small group basis, (2) Other occupational information activities such as field trips should be included into the OCCUPAC program, (3) Teachers using the OCCUPACS need instruction concerning individualized instruction, career development, how to use information techniques with the packages, and counseling, interviewing, and listening techniques, (4) More OCCUPACS representing a variety of occupations should be developed, and (5) Effective preservice and inservice procedures need to be developed for orienting teachers and counselors to K-9 occupational information. Tape scripts for each of the 15 OCCUPACS are appended. (SB)

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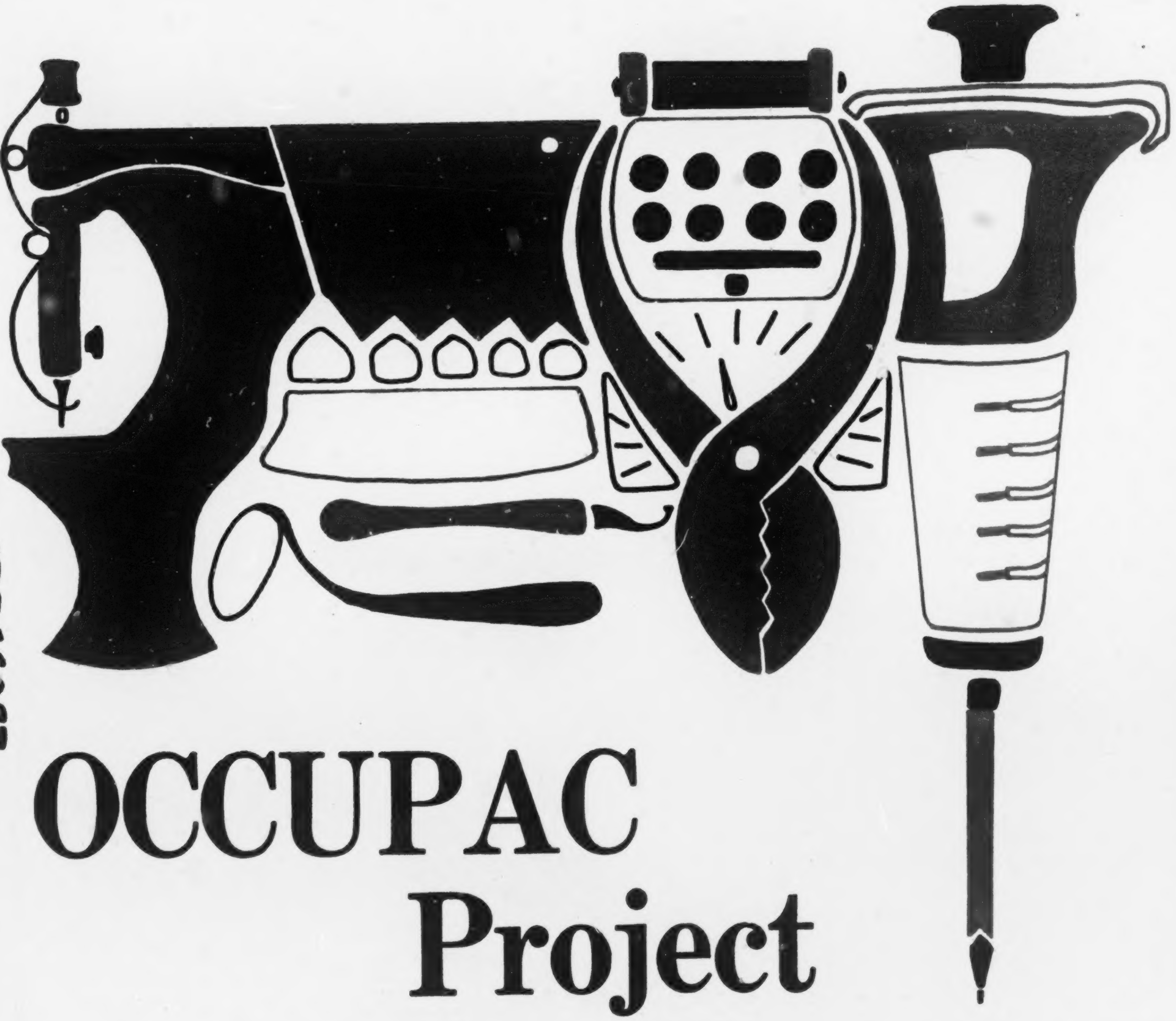
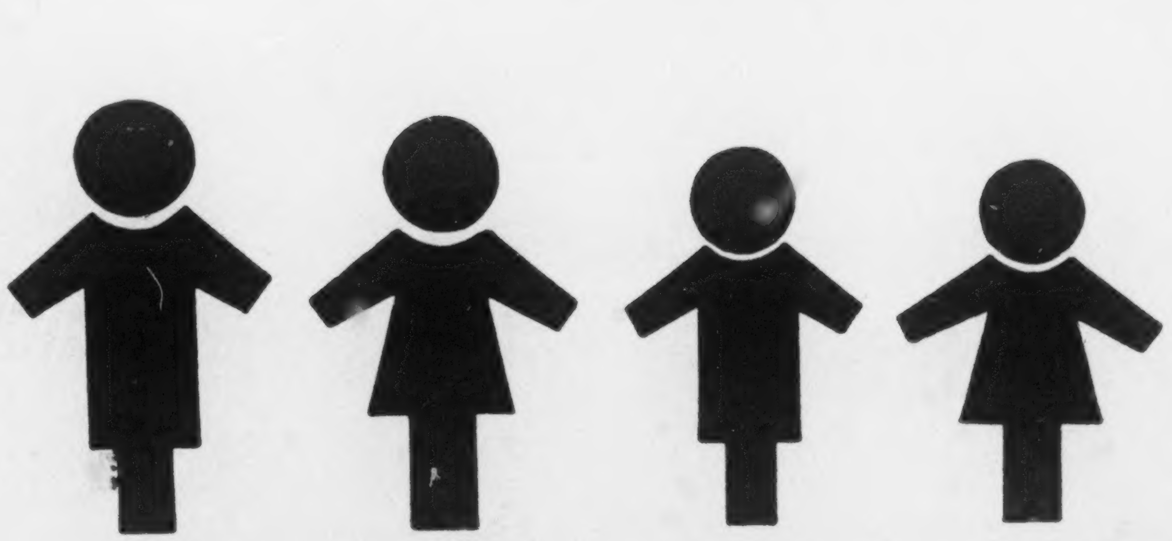


OCCUPAC Project

Phase I, Final Report



Developed by The Center for Educational Studies, Eastern Illinois University, Charleston, Illinois, in cooperation with The Illinois Division of Vocational and Technical Education.

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FINAL REPORT

Project No. PDC-A1-008

THE OCCUPAC PROJECT

(A PROJECT TO DEVELOP OCCUPATIONAL INFORMATION LEARNING ACTIVITY PACKAGES FOR GRADES K-9)

by

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June 1971

The OCCUPAC Project was conducted pursuant to a contract with the Professional and Curriculum Development Unit, Division of Vocational and Technical Education, Board of Vocational Education and Rehabilitation, State of Illinois.

PREFACE

Any professional school should be well ahead of practitioners in analyzing the society and its needs and in prescribing appropriate courses of action. While professional education is not responsible for all of the problems and dilemmas that confront society, it is responsible for some. In the same vein, education cannot by itself overcome the ills of society, but professional education must provide solutions to educational problems. It does not require a great deal of knowledge or insight, however, to know that our school system does not produce people who are ready to participate in the modern technological urban society of today, let alone in the society of the future. Project OCCUPAC is intended to contribute concepts and materials designed to increase understanding of occupations essential to a technological society, but which are often neglected in elementary schools.

On Eastern's campus the Project to Develop Occupational Information Learning Activity Packages for Grades K-9 is unique in that it represents a venture developed by the Center for Educational Studies, funded by the Division of Vocational and Technical Education of the Illinois Board of Vocational Education and Rehabilitation, and implemented by the Laboratory School and selected public schools of the area.

The OCCUPAC Project has as a primary objective the development, testing, and dissemination of learning activity packages relating to occupational information. A basic assumption guiding the OCCUPAC Project is that occupational aspirations of individuals are influenced by early exposure to a wide variety of occupations. The first phase, consisting of the development and testing of a limited number of activity packages has been accomplished and available evidence indicates that the goals of Phase I have been achieved.

The successful development of Phase I has required support from a large segment of the University, the Division of Vocational and Technical Education, and the public schools of Decatur, Lombard, Marshall, and Martinsville. The success of the project is in large measure the result of the leadership of Dr. Charles Joley, Coordinator of Field Services, Center for Educational Studies, Faculty of Education, and Dr. Donald Gill, Principal, Laboratory School, Faculty of Education, who developed the project; Dr. Marla Peterson who has directed the project; and Dr. Ann Jackson, Dr. Raymond Griffin, Gayle Strader, and Dr. Carl Tausig, members of the Laboratory School staff who assisted in the development phase. The strong encouragement and assistance of Dr. Sherwood Dees, Director of the Division of Vocational and Technical Education, William Reynolds, Coordinator, and Lonnie Hart, Assistant Coordinator of the Professional and Curriculum Development Unit of the DVTE, have been appreciated and have contributed greatly to the success of the project. Other staff members included Patricia Corbin and Ross Wakefield who have served as Research Associates.

The Faculty of Education values the opportunity to contribute to the solution of education problems through participation in Project OCCUPAC, and it is our hope that in Phase II we will further contribute to the integration of the concepts embodied in OCCUPAC in the total school curriculum.

Harry Merigis, Dean
Faculty of Education

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ACKNOWLEDGEMENTS

A project such as the OCCUPAC Project requires the assistance of personnel from many disciplines. The interdisciplinary team of staff members and consultants who worked on the OCCUPAC Project were indeed a team. Each made his contribution in his own way but in a manner which exemplified a spirit of cooperation. My sincere thanks go to the two Faculty Assistants who served on the project staff: Patricia Corbin, Graduate Student in Elementary Education and Ross Wakefield, Graduate Student in Industrial Arts. My appreciation is also extended to Dr. Ray Griffin, Industrial Arts Project Consultant, Dr. Ann Jackson, Elementary Education Project Consultant, Dr. Carl Tausig, Elementary Education Project Consultant, and Mrs. Gayle Strader, Home Economics Project Consultant.

Dr. Donald Gill and the staff of Buzzard Laboratory School cooperated with all aspects of the project. The flexibility with which the project staff was allowed to operate in Buzzard Laboratory School has been crucial to the success of the project. Two staff members at Buzzard Laboratory School, Mrs. Rosemary Reece, Second Grade Teacher, and Mr. Willis Waltman, Director of the Instructional Materials Center, were particularly helpful in providing project assistance.

Ideas for the design on the OCCUPAC box lid were submitted by students in Phillip Settle's 9th grade art classes at Buzzard Laboratory School. These ideas were worked into the final box lid design by Michael Walsh, student teacher who worked with Mr. Settle.

The farsightedness of Dr. Charles Joley should also be recognized inasmuch as it was under his direction that the original proposal to develop learning activity packages was submitted. His support, along with the support of Dr. Harry Merigis, Dean of the Faculty of Education was sincerely appreciated.

Business and industry in the Charleston-Mattoon, Illinois area were particularly helpful in allowing project staff members to talk with and photograph employees. Dr. Floyd Landsaw of the Eastern Illinois University Audio-Visual staff gave valuable technical advice and assistance in the production of slides from the photographs which were taken at the various business and industrial sites.

Dr. Clifford Strandberg of the Eastern Illinois University Industrial Arts Department willingly gave his advice on graphic arts aspects of the project.

The OCCUPAC Project was one of the first research and development projects of its kind to be conducted at Eastern Illinois University. The climate of acceptance for this type of activity as shown by faculty and students at Eastern Illinois University was indeed gratifying.

Marla Peterson
Project Director

CHAPTER I

THE OCCUPAC PROJECT

Purpose of the Project

The question of whether or not career information should be presented in the elementary school is no longer a debatable one. Attitudes, needs, values, and interests --vital elements in the eventual choice of a career are influenced by the learning experiences presented during the elementary school years.

However, the approaches to be used for presenting K-9 career information are debatable. Certainly the printed job information format so commonly used in the high school cannot be the major career information vehicle used in the elementary school. Field trips, interviews, and the other often-suggested procedures for supplying career information at the high school level can also be used in the elementary school. However, new approaches for presenting K-9 career information are needed.

It was with these thoughts in mind that a proposal was submitted by the Center for Educational Studies, Eastern Illinois University, to the Illinois Division of Vocational and Technical Education for funding to conduct "A Project to Develop Occupational Information Learning Activity Packages for Grades K-9." This project has subsequently come to be known as the OCCUPAC Project. The project derives its name from the OCCUPACS--the packages of multi-media elementary school occupational information materials which were developed by the project staff.

The need for new approaches for presenting K-9 occupational information manifests itself in many forms:

> No matter how energetic or how resourceful a classroom teacher or elementary counselor may be, he cannot be an encyclopedia of information on careers.
>
> > New Approach Need No. 1: Materials must be developed which are not solely dependent upon the teacher or counselor.

> Elementary school occupational information should be extended beyond the "community helpers" approach which has been so prevalent in the past. The fireman, the policeman, and the grocer are worthwhile occupations, but so are the licensed practical nurse, the secretary, and the electrician.
>
> > New Approach Need No. 2: Materials must be developed which expose elementary school children to a variety of occupations.
>
> The narrow range of occupations which has been presented to elementary school children coupled with the fact that many classroom teachers are oriented toward the professions have unintentionally built in the eyes of many children a low prestige image of some occupations.
>
> > New Approach Need No. 3: Materials must be developed which build wholesome attitudes toward all useful work.
>
> Children learn by seeing, talking, listening, and "doing." Seeing, talking, and listening have generally been included in traditional approaches for presenting K-9 occupational information. However, "doing"--the very thing to which career information readily lends itself has been neglected.
>
> > New Approach Need No. 4: Materials must be developed which use a multimedia approach. Seeing, talking, listening, and "doing" must all be included.

These needs definitely influenced the OCCUPAC Project staff as they developed the OCCUPACS. However, a certain educational philosophy also pervades the OCCUPACS.

Under many present school programs, skills and knowledge are taught as goals in themselves rather than as tools to help students reach their natural goals. Adventure and curiosity are stifled in many school environments and many schools are not providing enough experiences to nurture the natural behaviors of human beings. Control over the destiny of one's life appears unattainable to many of our youth and schools, in general, are not helping the student see that the goals of the school are to enable students to develop control over their future.

Many educational leaders from all disciplines are studying their subject matter areas and are attempting to produce a curriculum which is more relevant to the lives of today's youth. They are concluding that the value of a subject does not lie solely in the accumulation of skills and knowledge (content), but in special ways (processes) of looking at phenomena, its method of inquiry, and its models for systematic thought. Yet when behavioral objectives are written for each subject matter area, they usually turn out to be content behavioral objectives rather than process behavioral objectives.

The OCCUPACS are concerned with processes--the processes that enable a person to have control of his future by allowing him to possess a framework for making decisions relative to his work life. Trying out, testing, and exploring are part of the OCCUPAC approach. The ultimate objective of a successful OCCUPAC Program is for the typical ninth grader to be able to relate intelligently his own capacities and interests to whatever occupation(s) which at that time would tend to offer a substantial basis for serious consideration as an eventual means for his earning a living.

Students can be given the tools which will help them in their exploring and researching activities through vocational education as well as general education activities. When this philosophy is accepted then general education and vocational education for all students will finally exist.

Organization of the Project

Phase I of the OCCUPAC Project began on August 1, 1970, and terminated on June 30, 1971. A full-time project director with a guidance and counseling, vocational education, and research background was employed to direct the project. One graduate student with an industrial arts and graphic arts background and one graduate student with an elementary education background were hired as half-time faculty assistants. An interdisciplinary team of four consultants from Buzzard Laboratory School, Eastern Illinois University, provided input into the project on a quarter-time basis. These consultants represented the fields of home economics education, industrial arts education, and elementary education.

In addition to the OCCUPAC Project Staff, Eastern Illinois University faculty members from the Art Department, Industrial Arts Department,and the Audio Visual Center volunteered their services.

The project was housed in Buzzard Laboratory School. The contents of the OCCUPACS are such that the staff needed to test OCCUPACS with children at various stages in the development of the OCCUPACS. Often, such questions as, "Can a first grader operate a scissor-type paper punch?" and "Can a first grader understand our description of shorthand?" had to be answered before subsequent materials for an OCCUPAC could be developed. The teaching staff of Buzzard Laboratory School allowed the OCCUPAC staff immediate access to children whenever a segment of an OCCUPAC had to be tested. This accessibility to children has been crucial to the success of the OCCUPAC Project.

Specific procedures used in development of the OCCUPACS will be outlined in Chapter II of this report. However, in general, the staff went through a cycle of: development, pilot testing in Buzzard Laboratory School, revision based on pilot testing, field testing in four public school settings, revision based on field testing, submission to professionals for final review, and inclusion in the final report.

CHAPTER II

PROCEDURES USED IN DEVELOPMENT OF THE PROTOTYPE OCCUPACS

Development of the OCCUPAC Model

At the outset of the project, the OCCUPAC Project staff determined that the results of existing research on child development and career development theory should be thoroughly reviewed before work could begin on the development of occupational information materials. After this review was conducted, the staff synthesized their findings into a model which could be used for the development of occupational information materials. This model, known simply as the OCCUPAC Model, is shown on Page 7.

The OCCUPAC Model presents specific concepts which are integrated into the OCCUPACS. However, all the OCCUPACS are inter-related by means of four general organizing principles, which may be stated as objectives for the materials:

1. To provide exposure to information and activities regarding specific occupations.

2. To provide opportunity for the development of certain generalizations (concepts) regarding occupations.

3. To encourage the growth of self-awareness with respect to talents, skills, knowledge, and interests.

4. To integrate occupational generalizations and the several facets of self-awareness.

Each OCCUPAC includes implications for all of these principles. But, as a rule, Principles 1 and 2 are emphasized in OCCUPACS intended for use with primary children; Principles 2 and 3 for intermediate children; and Principles 3 and 4 in the junior high.

The developers of the Model have assumed the position that interests, needs, values, etc. are not developed at any one point in time. Rather, a developmental approach has been used. As OCCUPACS progress through grade levels, so does their sophistication in the treatment of interests, needs, values, etc.

The OCCUPAC Model on Page 7 served as a guide for the preparation of scripts and the selection of media and materials for the OCCUPACS. The following concepts are included in the Model and thus are contained in the OCCUPACS:

What is an OCCUPAC?

- An OCCUPAC is a package of multisensory materials that presents occupational information at a level which can comprehended by K-9 students.

- Among the multisensory materials contained in the OCCUPACS are: slides, tapes, the "sounds" of work, equipment and materials used in various occupations, decision-making simulation activities, puppets, and "props" of all kinds from the REAL WORLD OF WORK.

For additional project information, write:
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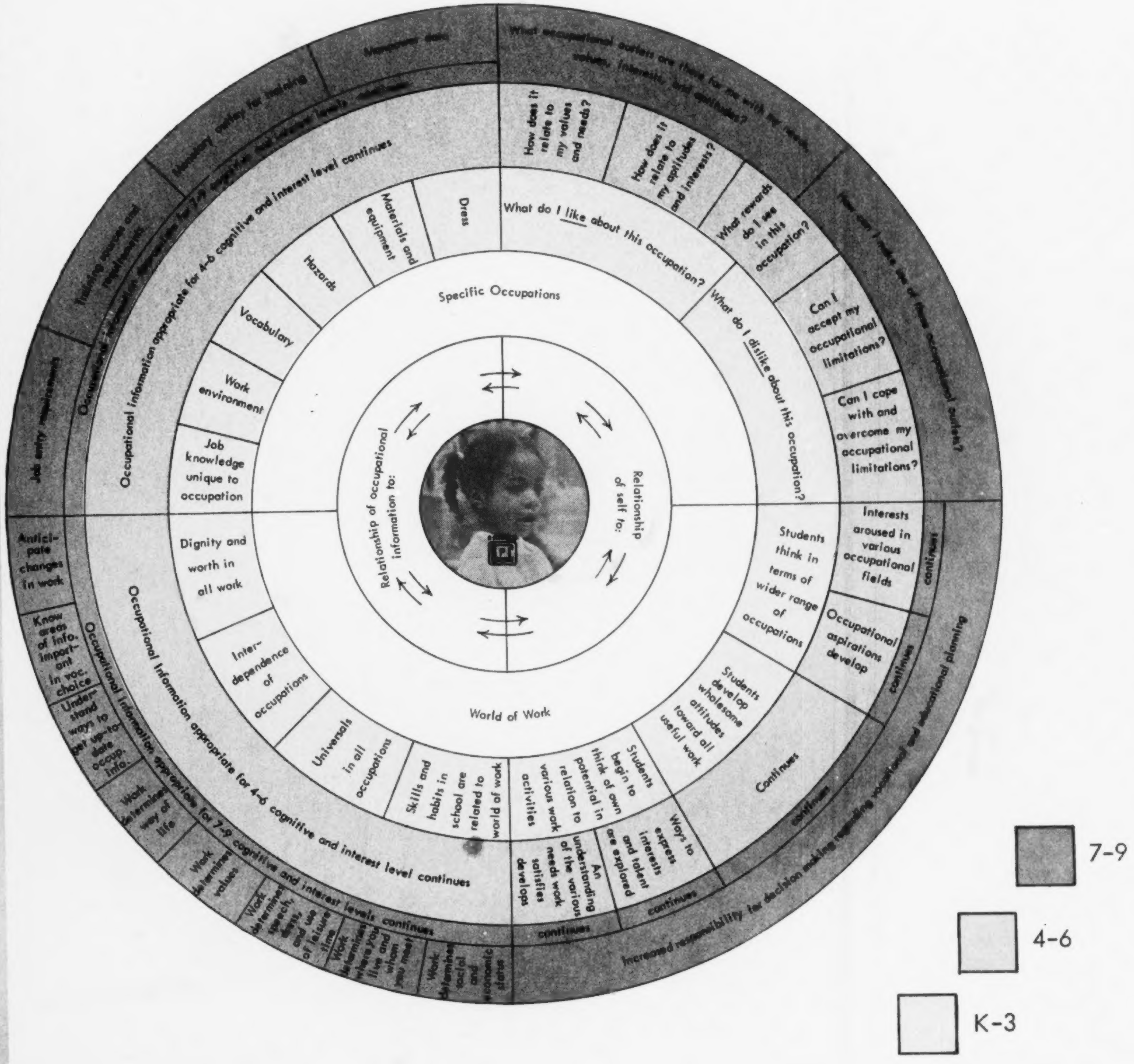
OCCUPAC

OCCUPAC –
a concept devoted to the
INDIVIDUALIZING of K-9 OCCUPATIONAL INFORMATION
learning materials. . . . .


Relationship of occupational information to:
Relationship of self to:
Specific Occupations
World of Work
Dress
Materials and equipment
Hazards
Vocabulary
Work environment
Job knowledge unique to occupation
Dignity and worth in all work
Inter-dependence of occupations
Universals in all occupations
Skills and habits in school are related to world of work
Students begin to think of own potential in relation to various work activities
Students develop wholesome attitudes toward all useful work
Students think in terms of wider range of occupations
What do I like about this occupation?
What do I dislike about this occupation?
How does it relate to my values and needs?
How does it relate to my aptitudes and interests?
What rewards do I see in this occupation?
Can I accept my occupational limitations?
Can I cope with and overcome my occupational limitations?
Interests aroused in various occupational fields
Occupational aspirations develop
Continues
Ways to express interests and talent are explored
An understanding of the various needs work satisfies develops
continues
Occupational information appropriate for 4-6 cognitive and interest level continues
Occupational information appropriate for 7-9 cognitive and interest levels continues
Job entry requirements
Training sources and requirements
Monetary outlay for training
Manpower data
What occupational outlets are there for me with my needs, values, interests, and aptitudes?
How can I make use of these occupational outlets?
Increased responsibility for decision making regarding vocational and educational planning
Antici-pate changes in work
Know areas of info. import-ant in voc. choice
Under-stand ways to get up-to-date occup. info.
Work determines way of life
Work determines values
Work determines speech, dress, and use of leisure time
Work determines where you live and whom you meet
Work determines social and economic status
7-9
4-6
K-3

Sup ed b nds f the isio
of Vocational and Technical
Education, State of Illinois

in cooperation with
The Center for Educational Studies,
Eastern Illinois University

Photographs taken at
Buzzard Laboratory School,
Eastern Illinois University—OCCUPAC
development and pilot testing site.

OCCUPAC

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THE K-3 LEARNER AND THE OCCUPAC APPROACH

Through exposure to the OCCUPACS, the K-3 learner will be presented with the following concepts which are related to his career development:

Occupational Information as It Relates to Specific Occupations

1. Each occupation has certain expectations related to dress which are associated with the occupation.
2. Each occupation has its own materials and equipment.
3. Each occupation has its unpleasant as well as its pleasant tasks and these are determined by the individual worker.
4. Each occupation attracts people with certain interests and needs.
5. Each occupation has its own vocabulary.
6. Each occupation has its own working conditions and environment.
7. Each occupation has job knowledge that is unique to that occupation.

Occupational Information as It Relates to the World of Work

8. There is dignity and worth in all useful work.
9. Occupations are dependent upon each other.
10. A pleasing personality is important in all occupations.
11. Both men and women can work in each occupation.
12. Skills and habits learned in school are related to the world of work.

The Self as It Relates to Specific Occupations

13. An individual may like certain things about an occupation.
14. An individual may dislike certain things about an occupation.

The Self as it Relates to the World of Work

15. An individual should begin to think in terms of a wider range of occupations.

16. An individual should start developing wholesome attitudes toward all useful work.

17. An individual should begin to think of his own potential in relation to various work activities.

THE 4-6 LEARNER AND THE OCCUPAC APPROACH

Through exposure to the OCCUPACS, the 4-6 learner will be presented with the following concepts which are related to his career development:

Occupational Information as It Relates to Specific Occupations

1. Each occupation has certain expectations related to dress which are associated with the occupations.
2. Each occupation has its own materials and equipment.
3. Each occupation has its unpleasant as well as its pleasant tasks and these are determined by the individual worker.
4. Each occupation attracts people with certain interests and needs.
5. Each occupation has its own vocabulary.
6. Each occupation has its own working conditions and environment.
7. Each occupation has job knowledge that is unique to that occupation.

Occupational Information as It Relates to the World of Work

8. There is dignity and worth in all useful work.
9. Occupations are dependent upon each other.
10. A pleasing personality is important in all occupations.
11. Both men and women can work in each occupation.
12. Skills and habits learned in school are related to the world of work.

The Self as It Relates to Specific Occupations

13. An individual's values and needs influence choice of a specific occupation.
14. An individual's aptitudes and interests influence choice of a specific occupation.
15. An individual expects certain rewards from an occupation.

16. An individual must learn to accept his occupational limitations as these limitations relate to specific occupations.

17. An individual must learn to cope with and overcome occupational limitations as these limitations relate to specific occupations.

The Self as It Relates to the World of Work

18. An individual's interests are aroused in various occupational fields.

19. An individual develops occupational aspirations.

20. An individual continues developing wholesome attitudes toward all useful work.

21. An individual explores ways to express interests and talents.

22. An individual develops an understanding of the various needs that work satisfies.

THE 7-9 LEARNER AND THE OCCUPAC APPROACH

Through exposure to the OCCUPACS, the 7-9 learner will be presented with the following concepts which are related to his career development:

Occupational Information as It Relates to Specific Occupations

1. Each occupation has certain expectations related to dress which are associated with the occupations.
2. Each occupation has its own materials and equipment.
3. Each occupation has its unpleasant as well as its pleasant tasks and these are determined by the individual worker.
4. Each occupation attracts people with certain interests and needs.
5. Each occupation has its own vocabulary.
6. Each occupation has its own working conditions and environment.
7. Each occupation has job knowledge that is unique to that occupation.
8. Each occupation has job entry requirements.
9. Each occupation involves training and training sources are available.
10. Each occupation has training requirements which may involve monetary outlay.
11. Each occupation may have few or many "openings" and this can be determined by manpower data.

Occupational Information as It Relates to the World of Work

12. There is dignity and worth in all useful work.
13. Occupations are dependent upon each other.
14. A pleasing personality is important in all occupations.
15. Both men and women can work in each occupation.
16. Skills and habits learned in school are related to the world of work.

17. Changes will occur in the world of work.

18. Some information is vital to choice of an occupation.

19. There are ways to obtain up-to-date occupational information.

20. Work helps determine way of life.

21. Work helps determine values and vice versa.

22. Work helps determine speech, dress, and use of leisure time.

23. Work helps determine where you live and whom you meet.

24. Work helps determine social and economic status.

The Self as It Relates to Specific Occupations

25. An individual's values and needs influence choice of a specific occupation.

26. An individual's aptitudes and interests influence choice of a specific occupation.

27. An individual expects certain rewards from an occupation.

28. An individual must learn to accept his occupational limitations as these limitations relate to specific occupations.

29. An individual must learn to cope with and overcome occupational limitations as these limitations relate to specific occupations.

30. An individual must ask, "What occupational outlets are there for me with my needs, values, interests, and aptitudes?"

31. An individual must ask, "How can I make use of these occupational outlets?"

The Self as It Relates to the World of Work

32. An individual's interests continue to be aroused in various occupational fields but the fields begin to narrow.

33. An individual continues developing occupational aspirations.

34. An individual continues developing wholesome attitudes toward all useful work.

35. An individual explores ways to express interests and talents.

36. An individual develops an understanding of the various needs that work satisfies.

37. An individual accepts increased responsibility for decision making regarding vocational and educational planning.

Establishment of Feasibility Criteria

The recognition that attitudes, needs, values, and interests--vital elements in the eventual choice of a career--are influenced by the learning experiences presented during the elementary school years, brought about the need for occupational information materials specifically designed for the elementary and junior high school student. During the early 1970's those school systems which have developed or are in the process of developing elementary school and junior high school occupational information programs are all faced with the same problem: there is a definite lack of materials and methods which are suitable for presenting K-9 occupational information.

The immediacy of the need for K-9 occupational information materials as expressed by the public schools called attention to the fact that materials developed by the project staff had to have the capability of being accepted by the public schools. Other feasibility factors also influenced the staff. The feasibility criteria used by the staff are summarized below:

1. Will the materials fit into existing school programs? Will a complete reorganization of the curriculum be required or can these materials be easily assimilated into school programs?
2. Will the materials fit into the many patterns of school organization and school curriculum? Will the materials work in either a self-contained classroom or an open-classroom situation? Can multi-age groups and multi-ability groups use these materials? Can the materials be used in the various types of guidance programs that are found in the junior high school? Can they be used in the junior high school counselor's office, in the junior high school English or social studies classrooms, in the junior high school libraries and media centers?
3. Will the materials be in a price range that would permit school systems to use the materials? What types of audio-visual equipment will be needed to use the materials? Are the materials expendable? How much updating will be necessary?

4. Will the materials have "built-in" in-service and pre-service training potential? Will the materials help lessen the teacher and counselor anxiety that is generally associated with introducing any new school programs?

5. Will the materials fit into the physical space available in schools? Is it necessary to have all the materials in one classroom or can the materials be physically placed in many locations?

6. Will the materials interest students? Is this another present-the-information, test-for-learnings, kind of approach? Or is this an "excitement" kind of learning where children can explore their feelings and thoughts about various life styles? Can measurement of cognitive learnings be subjugated to the measurement of affective learnings? Can the imperfect ways of measuring affective learnings be accepted by the teaching and counseling profession if it is obvious that students are involved and excited by the material?

7. Will the materials have potential for acceptance by schools? If Criteria 1-6 are met, will the climate for acceptance be present in the schools? Will the teacher and counselor education professions accept the theory behind the placement of occupational information in the elementary and junior high school curriculum? Will the teacher and counselor education professions accept the approach and content that are part of the materials?

8. Will the available facilities, manpower, and funding be sufficient to develop materials that meet Criteria 1-7? Can agreement be reached on the approach to be used for meeting Criteria 1-7 so that there is sufficient time to develop the materials?

In this report, the "Establishment of Feasibility Criteria" follows the presentation of the "Development of The OCCUPAC Model". This is also the sequence of procedures which were followed by the OCCUPAC Project Staff. The staff first asked, "What is it that elementary and junior high school students should be exposed to in terms of their career development?" This question was then followed by another question: "How can materials be developed which incorporate the career development learnings which are thought to be essential and at the same time have a high rate of acceptance by the public schools?"

Selection of a Self-Contained, Multi-Media Approach

After the OCCUPAC Model had been developed and after the feasibility criteria had been outlined, the project staff had to determine what form the materials should take in order to convey the concepts outlined in the OCCUPAC Model and in order to meet the feasibility requirements.

One of the first problems that was encountered was the problem of whether the packages of materials should be written for specific occupations or whether the materials should be written for clusters of occupations. Because of the shorter attention span of elementary school children and because many of the occupations or occupational areas would be new to many of the elementary school children, it was determined that the K-6 materials would be built around specific occupations and that the 7-9 materials would incorporate clusters of occupations.

It was also decided that although the K-6 materials would be built around specific occupations, the materials, nevertheless, would show the other people with whom a worker might work. However, the focal point of the K-6 materials was a worker in a specific occupation. The industry within which the specific occupation might be found was not ignored. However, the person and not the product was the main consideration.

Whenever a decision is made to cluster occupations, the question immediately arises, "Cluster around what?" Occupations could be clustered into such varied groups as "The Helping Professions"--a cluster based on psychological needs, "The Building Trades Industry"--a cluster based on an industry, or "Office Occupations"--a cluster based on certain skills. The number of ways to cluster occupations certainly exceeds the samples cited above.

The materials developed for the junior high school approach an industrial clustering. For example, junior high school materials were developed on Computer Technology and Food Technology. The Computer Technology materials present information on the computer programer, the key punch operator, the tape librarian, the data processing manager, etc.

It should be noted that at the junior high school level some experimenting was done with some OCCUPACS which did not follow the OCCUPAC Model. These OCCUPACS focused on topical areas--women's work, moving to a new job, etc. These experimental OCCUPACS did not meet with student acceptance to the degree that was evident with the OCCUPACS that followed the OCCUPAC Model format. It is therefore recommended that future OCCUPAC project efforts be concentrated on developing OCCUPACS which follow the OCCUPAC Model.

The knowledge that not all students would be highly interested in every occupation influenced the staff to develop a package of materials that would be self-contained. Self-contained as it relates to the materials basically means that a student could pick up the materials and be able to use the materials without teacher assistance. The self-contained aspect of the materials was made possible by placing all information on cassette tapes. Thus, the materials could be used on an individual instruction basis. However, this does not preclude small-group use of the materials, and in some cases, large-group use of the materials.

As an instructional method, however, the developers of the materials highly recommend that students use the materials on an individual instruction or small-group basis. Students need some time alone to think, try out, and test and at their own rate of speed.

Because the developers believed so highly in appealing to as many "senses" as possible, many manipulative, as well as looking and listening activities were included in the materials. The manipulative activities were carefully chosen so that they represent the work that is involved in the occupation under study.

An examination of the Electrician OCCUPAC will help the reader understand what is contained in an OCCUPAC. The first activity in the Electrician OCCUPAC is a slide-tape presentation on the work of the electrician. The child inserts a cassette tape into a recorder and places a stack of slides in a hand viewer. The tape tells the child when to insert slides.

The taped commentary which accompanies the slides follows the OCCUPAC Model: What does the worker wear? Where does he work? What tools or equipment does he use? What do you suppose made him choose this work? Does he like to climb in high places? Would you like to climb in high places? Would you like to use the tools he uses? etc.

In addition to the slide-tape presentation, three more activities accompany the OCCUPAC. Each of these three activities involves a wiring activity. The cassette tape supplies the directions. For example, the tape says, "There is a tool belt in the OCCUPAC. Take this tool belt out of the OCCUPAC, and fasten the belt around your waist." The child then proceeds to put on the tool belt and take the necessary wires, bulbs, batteries, etc. out of the OCCUPAC. As he puts on the electrician's tool belt and as he performs some of the work of an electrician, he begins to test some of his feelings about this kind of work. The tape very emphatically points out that this is not the only work the electrician peforms but it is the work which is performed most often by an electrician.

After the child has worked with the various manipulative activities, he is encouraged to go back and listen to the slide-tape presentation again and see how the work that he performed with the manipulative activities related to what he saw the electrician doing in the slides.

Instructions to the teacher encourage the teacher to tell the students that they may stop the tape recorder whenever they wish. They may also rewind the tape and listen again if they need to have the instructions repeated.

In summary, what emerged was a self-contained package of multi-media materials known as an OCCUPAC. Among the materials contained in the OCCUPACS are: slides, tapes, the "sounds" of work, equipment and materials used in various occupations, decision making simulation activities, puppets, and "props" of all kinds from the REAL WORLD OF WORK.

Sources of Information for Contents of the OCCUPACS

A variety of means were used for obtaining factual information on the jobs or tasks performed by a worker. Even though great care was exercised in getting input from as many different sources as possible, the OCCUPAC Project staff recognized that the jobs and tasks performed by a worker may vary from one job setting or environment to another. This fact is emphasized and re-emphasized in the material presented to the students.

Standard sources of information such as the Occupational Outlook Handbook were consulted. Workers in the occupations for which the OCCUPAC was being developed were consulted. Often, many workers were unable to analyze what they really do. Workers, however, were very valuable in terms of reviewing OCCUPAC scripts for such things as appropriate use of technical vocabulary and for determining whether the tasks as presented in the OCCUPAC really represented their occupation.

An important source of information, when such information was available, was the research studies in which task analysis of various occupations had been performed. For example, The UCLA Allied Health Professions Projects[1] which were concerned with task analysis in the health occupations and NOBELS: A Taxonomy of Office Activities for Business and Office Education[2] which was concerned with task analysis in business and office occupations provided valuable information for developing OCCUPAC scripts.

Professionals and educational leaders in an occupational area were also consulted. For example, Dr. Robert Griffiths, Vice-President of the Illinois State Dental Society and Past President of the American Dental Society of Anesthesiology reviewed the Dental Assistant OCCUPAC.

In addition to the factual information which was required for the OCCUPAC scripts, many new models and manipulative materials were needed. For the most part, the manipulative materials prototypes were built in the Buzzard Laboratory School industrial arts and home economics facilities. In some cases existing materials were modified for use with elementary and junior high school students.

The 15 Prototype OCCUPACS

Sixteen prototype OCCUPACS were developed. However, one of the OCCUPACS is in need of further revision and thus is not being submitted as a part of the Phase I Final Report. Photographs of the 15 prototype OCCUPACS which are being submitted are shown in the next section of this report. The complete tape scripts for these 15 OCCUPACS appear in the appendices of this report.

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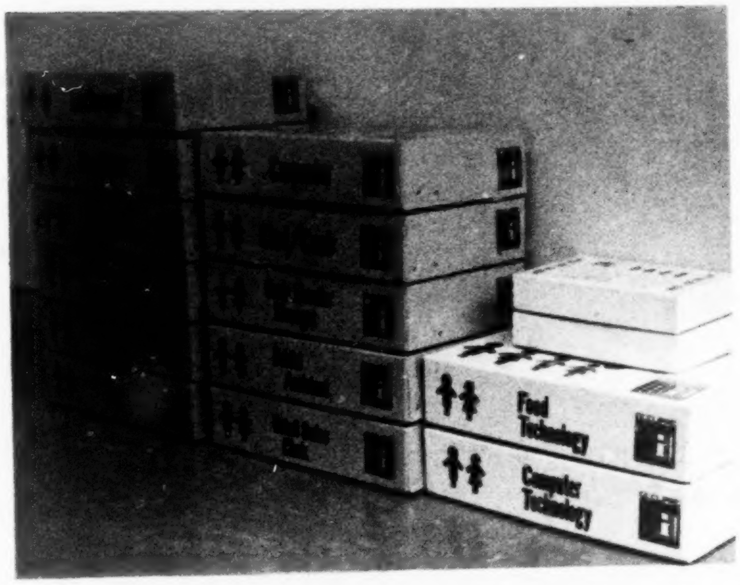
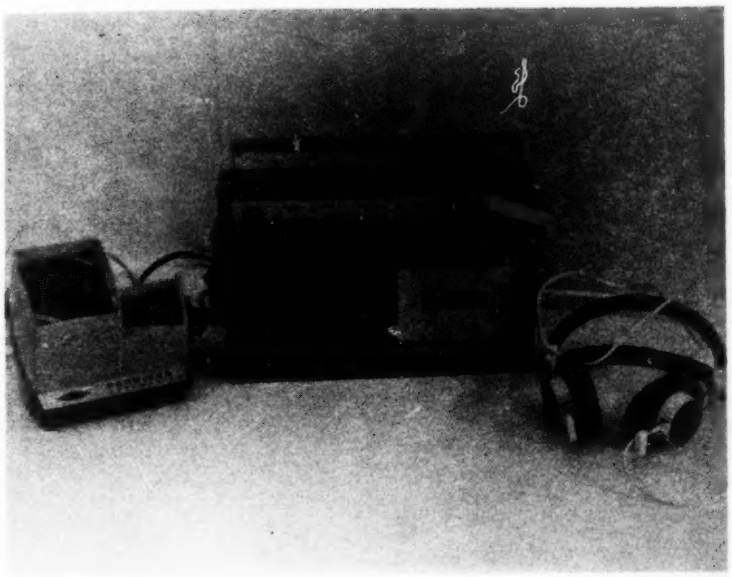
[1] Richard D. Kingston, D. D. S. and Thomas E. Freeland, M.A., Dental Auxiliary Occupations, Task Analysis Data, Research and Demonstration Grant 8-0627, U.S. Office of Education, Bureau of Research, University of California, Los Angeles, February 1971.

[2] Harry Huffman, Mary Margaret Brady, Marla Peterson, and Annell Lacy, NOBELS: A Taxonomy of Office Activities for Business and Office Education, Grant No. OEG-1-7-071223-5134, The Center for Vocational and Technical Education, The Ohio State University, Columbus, Ohio, July, 1968.

THE OCCUPACS


Food Technology
Computer Technology

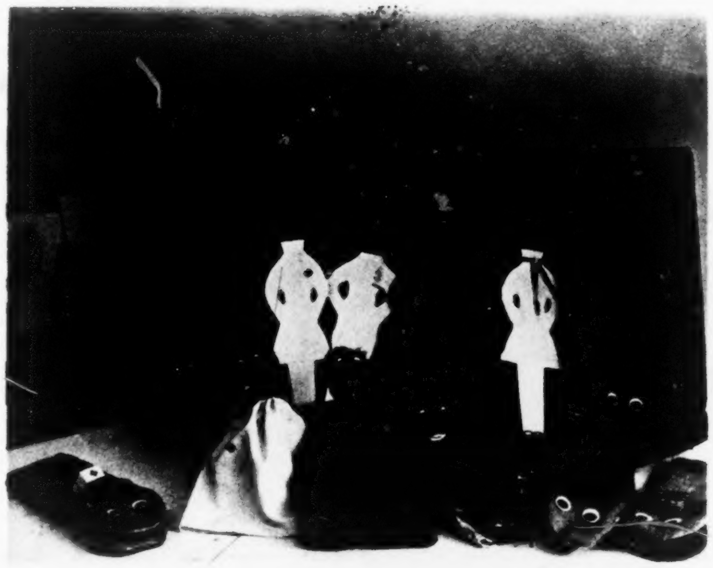
The 15 prototype OCCUPACS represent a variety of occupations.



A slide viewer and a cassette tape recorder are the audio-visual equipment which is used with the OCCUPACS.

The OCCUPAC Project staff watch as children from Buzzard Laboratory pilot test contents of the Electrician OCCUPAC.

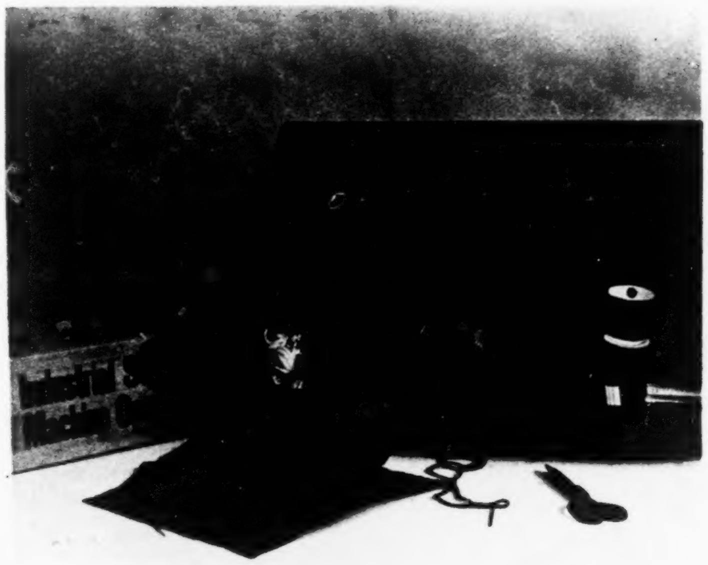
K - 3 OCCUPACS



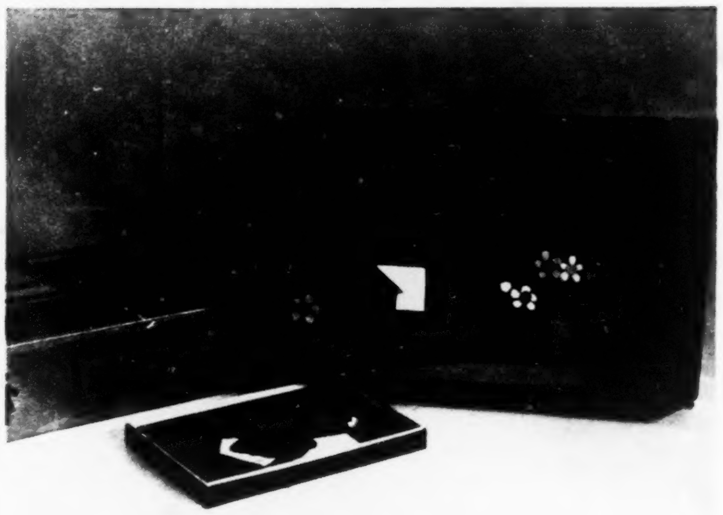
The OCCUPAC Puppets

Electrician

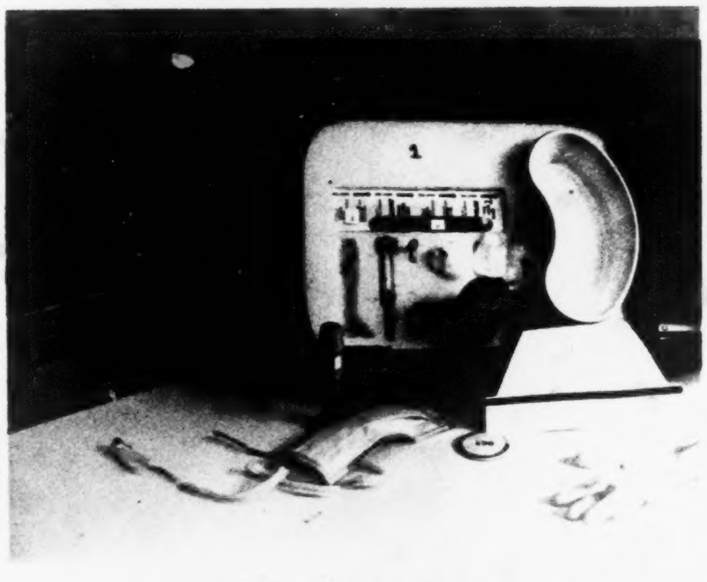
Electrician



Industrial Sewing Machine Operator



Landscaper



Licensed Practical Nurse

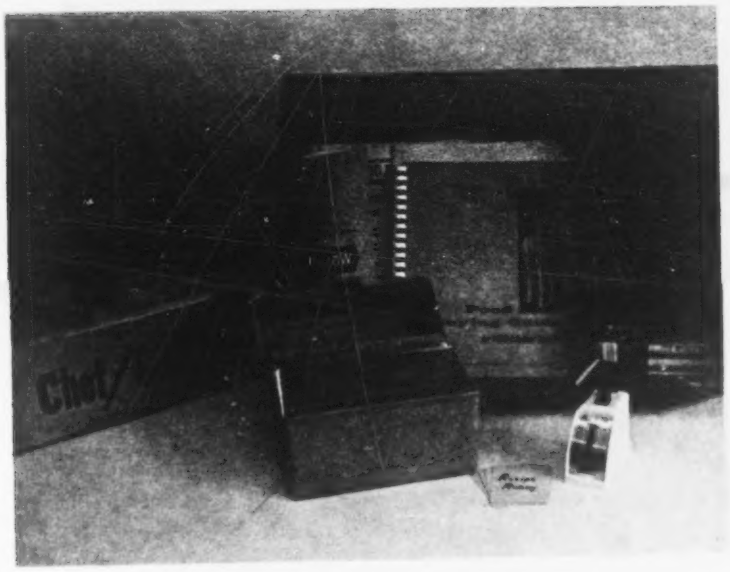
Secretary

4 - 6

OCCUPACS

B
MEASURING BOOK
Carpente
D
A

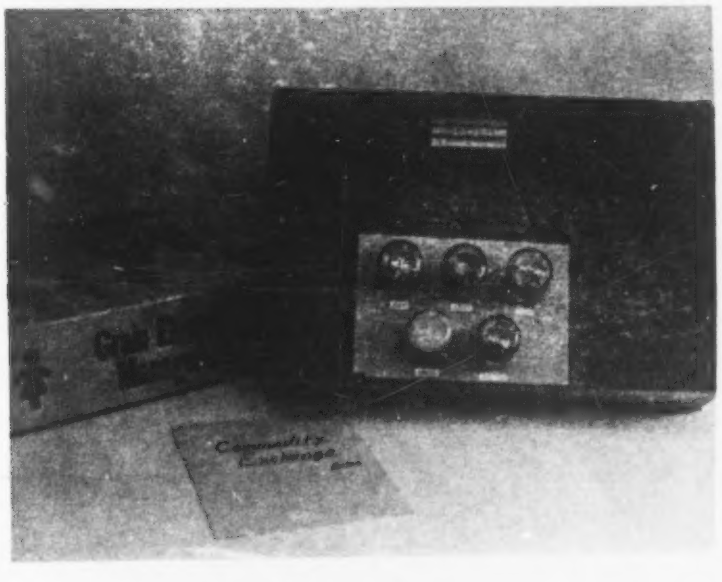
Carpenter



Chef/Cook

Dental
Assis

Dental Assistant

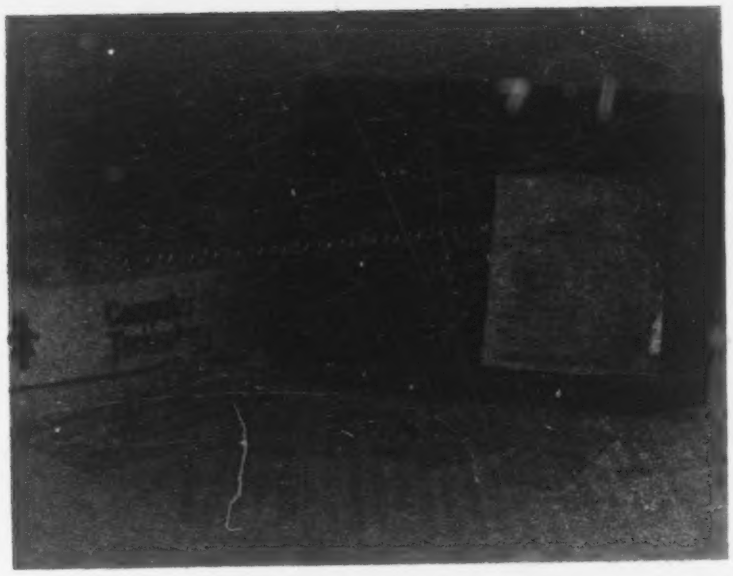

Commodity
Exchange

Grain Elevator Manager

Retail S
Clerk

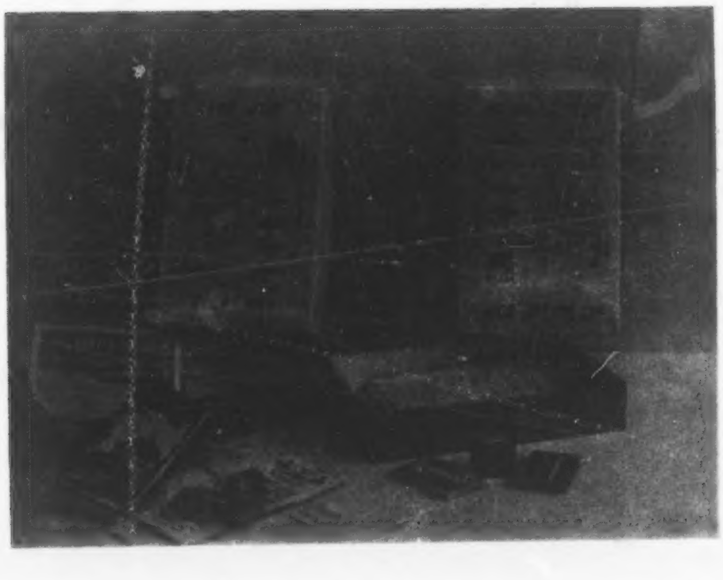
Retail Sales Clerk

7 - 9 OCCUPACS



Computer Technology

Food Technology



Help Me!
Mrs. Zip, Zip, Zip

CHAPTER III

THE EVALUATION DESIGN

Evaluation Philosophy

An evaluation design rather than an experimental design was used for the project. There were many reasons for choosing an evaluation design for a developmental program. These reasons have been stated quite adequately by Egon Guba and Daniel Stufflebeam:

> On the surface, the application of experimental design to evaluation problems seems reasonable, since traditionally both experimental research and evaluation have been used to test hypotheses about the effects of treatments. However, there are four distinct flaws with this reasoning.
>
> First, the application of experimental design to evaluation problems conflicts with the principle that evaluation should facilitate the continual improvement of a program. Experimental design prevents rather than promotes changes in the treatment because treatments cannot be altered in process if the data about differences between treatments are to be unequivocal. Thus, the treatment must accommodate the evaluation design rather than vice versa; and the experimental design type of evaluation prevents rather than promotes changes in the treatment. It is probably unrealistic to expect directors of innovative projects to accept conditions necessary for applying experimental design. Obviously, they can't constrain their treatment to its original definition just to ensure internally valid end-of-year evaluative data. Rather, project directors must use whatever evidence they can obtain continually to refine and sometimes radically to change both the design and its implementation. It is thus contended here that conceptions of evaluation are needed which would stimulate rather than stifle dynamic development of programs.

A second flaw in the experimental design type of evaluation is that it is useful for making decisions after a project has run full cycle but almost useless as a device for making decisions during the planning and implementation of a project. It provides data after the fact about the relative effectiveness of two or more treatments. Such data, however, are neither sufficiently specific and comprehensive nor are they provided at appropriate times to assist the decision-maker to determine what a project should accomplish, how it should be designed, or whether the project activities should be modified in process. At best, experimental design evaluation reflects post hoc on whether a project did whatever it was supposed to do. At that time, however, it is too late to make decisions about plans and procedures which have already largely determined the success or failure of the project.

A third problem with the experimental design type of evaluation is that it is suited to the antiseptic conditions of the laboratory but not to the septic conditions of the classroom. The potential confounding variables must either be controlled or eliminated through randomization, if the study results are to have internal validity. However, in the typical educational setting this is nearly impossible to achieve. . . . Evaluation is not interested only in determining the relationship among variables in that best of all possible worlds--the laboratory; it is also concerned with determining what will happen in the worst of all possible worlds. Thus, far from wishing to screen out possible sources of interference, evaluation is actually concerned with inviting interference so that results under the worst possible circumstances can also be assessed.

A fourth flaw inherent in the application of conventional experimental design is the possibility that while internal validity may be gained through the control of extraneous variables, such an achievement is accomplished at the expense of external validity. If the extraneous variables are tightly controlled, one can have much confidence in the findings pertaining to how an innovation operates in a controlled environment. However, such findings may not be generalizable to the real world at all since in that world the so-called extraneous variables operate freely. Clearly it is important to know

> how educational innovations operate under real world conditions.[1]

With this evaluation philosophy in mind, the staff set out to formulate an evaluation plan which would provide the kind of continuous feedback that would improve the main thrust of the project--the OCCUPACS.

One objective in terms of child behavior was whether or not the child was able to complete the activities he attempted. The chief concern was whether or not the contents of a particular OCCUPAC can provide children with a ready opportunity for interaction with its materials. Consequently, during this period of production, the developers were particularly concerned with the "behavior" of the OCCUPAC rather than any specific or substantial changes in the child.

However, evaluation of whether the types of behavior specified in the OCCUPAC Model were occurring was a consideration in the overall evaluation plan. Teacher observations and student interviews were conducted and data from these observations and interviews will be presented later.

Pilot Testing and Field Testing Sites

Pilot testing of the OCCUPACS took place in Buzzard Laboratory School, Eastern Illinois University, Charleston, Illinois. The contents of the OCCUPACS are such that segments of an OCCUPAC sometimes had to be tested before subsequent segments of an OCCUPAC could be developed. Children at Buzzard Laboratory School were observed as they attempted an OCCUPAC activity. These children also made suggestions for improvements in the taped directions and for the manipulative materials.

After OCCUPACS had gone through the pilot testing stage, they were then tested in four public school systems.

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[1] Egon G. Guba and Daniel L. Stufflebeam, Evaluation: The Process of Stimulating, Aiding, and Abetting Insightful Action, An Address Delivered at the Second National Symposium for Professors of Educational Research, Sponsored by Phi Delta Kappa, Boulder, Colorado, November 21, 1968, pp. 14-16 (Mimeographed)

These systems were selected because they represented a cross section of environments--from rural to urban and from small town to suburb and inner city:

TABLE 1

PUPIL ENROLLMENT DATA

FOR

FIELD TESTING SCHOOL DISTRICTS

School District	Pupil Enrollment
Decatur, Illinois (District 61)	20,899
Lombard, Illinois (District 44)	5,975
Marshall, Illinois (District C-2)	1,742
Martinsville, Illinois (District C-3)	723

With the exception of the Marshall, Illinois School District, one elementary school and one junior high school from each system were selected as the field testing sites. Two elementary schools and one junior high school were used in the Marshall Schools. The pupil enrollment data for the field testing site schools is shown in Tables 2 and 3:

TABLE 2

PUPIL ENROLLMENT DATA FOR ELEMENTARY SCHOOL FIELD TESTING SITES

School	Pupil Enrollment	Grades Included
Decatur, Illinois (Ullrich School)	336	K - 6
Lombard, Illinois (Butterfield School)	412	K - 6
Marshall, Illinois (North School)	344	1 - 6
Marshall, Illinois (South School)	458	1 - 6
Martinsville, Illinois (City Elementary)	204	K - 6

TABLE 3

PUPIL ENROLLMENT DATA FOR JUNIOR HIGH SCHOOL FIELD TESTING SITES

School	Pupil Enrollment	Grades Included
Decatur, Illinois (Woodrow Wilson)	556	1 - 8
Lombard, Illinois (Junior High School)	903	7 - 8
Marshall, Illinois (Junior High School)	266	7 - 8
Martinsville, Illinois (Junior High School)	122	7 - 8

Other demographic data on the field testing sites reveals that the Lombard System is a suburban Chicago system; the Marshall and Martinsville systems serve rural central Illinois populations; and the Decatur system serves an urban central Illinois population. In the Decatur system, schools which had the highest Black student enrollment were chosen as field testing sites.

The quantity of OCCUPACS produced during this first year of development did not allow for the placing of OCCUPACS at every grade level at every field testing site. Table 4 presents information on where each OCCUPAC was tested and at which grade level each OCCUPAC was tested.

Data provided by the field testing teachers showed that at the K-6 grade levels classrooms were of mixed ability grouping except for the Marshall 4th grade classroom. This classroom was below grade level in reading, language arts, and arithmetic. The Decatur classrooms represented mixed abilities but a large majority of the students were also below grade level in reading, language arts, and arithmetic.

Data provided by the 7-9 field testing teachers showed that the Lombard, Marshall, and Martinsville classes were of mixed ability groupings. In Decatur, students were placed into ability groupings. OCCUPACS were tested with "slow", "average", and "fast" groups in Decatur.

Instructions Given to Field Testing Teachers

Data was gathered on the age, number of years of teaching experience, and the academic preparation of the field testing teachers. The eight K-6 teachers ranged in age from 24 to 59 and had a mean age of 35.1. Years of teaching experience for K-6 teachers ranged from 2 to 37 years with a mean of 12.1 years of teaching experience. Three of the K-6 teachers had Master's Degrees and the remaining five had Bachelor's Degrees. Degrees were received from a variety of educational institutions: Indiana Central College, Indiana State University, State College of Arkansas, Elmhurst College, Northern Illinois University, North Central College, Millikin University, Columbia University, and Eastern Illinois University. One university, Eastern Illinois University, had been attended by two of the K-6 teachers.

The four 7-9 teachers ranged in age from 24 to 59 and had a mean age of 36.6. Years of teaching experience for 7-9 teachers ranged from 2 to 12 years with a mean of 9.6 years of teaching experience. Three of the 7-9 teachers had Master's Degrees and one teacher had a Bachelor's Degree. Degrees were received from: Millikin University, Quincy College, and Eastern Illinois University. One university, Eastern Illinois University, had been attended by two of the 7-9 teachers. Degrees received by the 7-9 teachers were in a wide variety of subject matter areas: Social Science, History, French, Psychology, Home Economics, and Guidance and Counseling.

TABLE 4

FIELD TESTING SITE LOCATION AND GRADE LEVEL USED FOR TESTING OF K-6 OCCUPACS

OCCUPAC	Field Testing Site	Grade Level
Electrician	Decatur	2
	Martinsville	3
Ind. Sew.Mach. Op.	Martinsville	3
Landscaper	Marshall	1
	Decatur	2
Licensed Prac.Nurse	Marshall	1
	Lombard	2
	Decatur	2
Secretary	Decatur	2
	Lombard	2
OCCUPAC Puppets	Decatur	2
	Lombard	2
Carpenter	Decatur	4
	Martinsville	4
Chef/Cook	Lombard	6
Dental Assistant	Decatur	4
	Marshall	4
Grain Elev. Mngr.	Marshall	4
Retail Sales Clerk	Martinsville	5
	Lombard	6
Computer Technology	Marshall	7
	Lombard	8
Food Technology	Decatur	8
	Martinsville	8
Help Me!	Decatur	8
	Martinsvile	8
Mrs. Zip, Zip, Zip	Marshall	7
	Lombard	8
Part Time to Big Time	Martinsville	8

The field testing teachers were not told that they had to use the OCCUPACS in a prescribed way. Instead, the teachers were informed about the contents of the OCCUPACS and the philosophy behind the development of the OCCUPACS. Some teachers were provided with the audio-visual equipment that is recommended for use with the OCCUPACS and some teachers had to use so-called make-shift equipment that was not ideally suited for the materials.

These procedures were used for a variety of reasons: (1) information was needed on the many ways that teachers might fit the OCCUPACS into their school's curriculum, (2) information was needed on whether or not OCCUPACS could fit into any school program, (3) rather than screen out possible sources of interference, interference was invited so that results under less than ideal circumstances could be assessed, and (4) clearly it was important to know how educational innovations operate under real world conditions.

Evaluation Data on the OCCUPACS

In keeping with the philosophy that a good evaluation design will provide feedback for decision making during the planning and implementation of a project as well as after a project has run full cycle, the field testing teachers, students, workers and professionals in the occupational field under consideration, and educational leaders were asked to make suggestions for improving the OCCUPACS. Time did not permit for as much reviewing by educational leaders as the staff had hoped to obtain. Contingent upon funding for Phase II of the project, more reviewing by educational leaders should be conducted. Table 5 summarizes the many suggestions that were obtained from teachers, students, workers and professionals in the occupation under consideration, and educational leaders.

TABLE 5

EVALUATION DATA OBTAINED FROM TEACHERS, STUDENTS, WORKERS AND PROFESSIONALS IN THE OCCUPATION UNDER CONSIDERATION, AND EDUCATIONAL LEADERS FOR IMPROVING THE OCCUPACS

OCCUPAC	Evaluation Data Used for Improving OCCUPAC
Electrician	Give one more wiring direction and add more slides. Otherwise, do not change.
Industrial Sewing Machine Operator	Simplify the sewing activity. Give students a large, dull needle that they can use for sewing.
Landscaper	Do not change activities. Add a few more slides.
Licensed Practical Nurse	Get slides that show more bedside care of patients. Present information such as working with blood, broken bones, etc. so that it does not emphasize the macabre. Emphasize long working hours and the fact that working hours sometimes occur on holidays and during evening hours. Remove stripe from LPN cap and replace with LPN monogram. Change several terms so that they are technically correct.
Secretary	Do not change contents. However, for inner city children and those children below grade level in reading and language arts it is recommended that children be taken to an office and then work with the OCCUPAC. No difficulty was experienced with this OCCUPAC in the suburban field testing setting. However, inner city children experienced difficulty in relating to this OCCUPAC because many of the inner city children had no concept of what an office is or what kind of work might take place in an office.
OCCUPAC Puppets	Do not change.

TABLE 5 (Cont'd)

EVALUATION DATA OBTAINED FROM TEACHERS, STUDENTS, WORKERS AND PROFESSIONALS IN THE OCCUPATION UNDER CONSIDERATION, AND EDUCATIONAL LEADERS FOR IMPROVING THE OCCUPACS

OCCUPAC	Evaluation Data Used for Improving OCCUPAC
Carpenter	Change the paper and pencil measuring activity to a manipulative activity.
Chef/Cook	Delete the second weighing activity. One weighing activity is sufficient so substitute a "cooking terms" activity.
Dental Assistant	Change several terms so that they are technically correct. Make sure that students understand that the dentist uses study models so that he can form a treatment plan.
Grain Elevator Manager	Place more manipulative activities in this OCCUPAC.
Retail Sales Clerk	Do not change.
Computer Tech.	Do not change.
Food Technology	Expand the part of the script which deals with the dietician and the manager.
Help Me!	Go back to your "regular" OCCUPACS. This type of OCCUPAC does not "excite" students as much as the OCCUPACS that involve manipulation, trying out, and testing.
Mrs. Zip, Zip,Zip	This OCCUPAC is acceptable. However, OCCUPACS which follow the "regular" OCCUPAC Model command considerably more interest.
Part Time to Big Time	Expand information in this OCCUPAC. Although it does not include the manipulation that is involved in the "regular" OCCUPACS, the information was of interest to the students.

The suggestions outlined in Table 5 were incorporated into the OCCUPACS. The staff was pleased that field testing teachers felt comfortable enough to make open and frank suggestions for improvement of the OCCUPACS. As was stated earlier in this report, the "topical" OCCUPACS for the junior high school (which were a departure from the OCCUPAC Model format) did not meet with the acceptance that was highly evident with the OCCUPACS which followed the OCCUPAC Model. At this stage of the program's development it is recommended that future development of 7-9 OCCUPACS follow the OCCUPAC Model.

A general complaint which was expressed by the junior high school students and teachers was the poor quality of tapes. The tapes used to record the junior high school scripts were an inexpensive type and the quality of the recording reflected this savings in cost. All the junior high school scripts have been re-recorded on better quality tapes. In the future, good quality tapes should be purchased for all scripts.

Field testing went much smoother in those schools which had access to the audio-visual equipment which is recommended for use with the OCCUPACS. A small, hand-operated slide viewer into which a stack of slides can be inserted is recommended for use with the OCCUPACS. Other viewers will work but there is a larger amount of teacher time needed to assist students with audio-visual equipment.

Thus far, the evaluation data which has been presented has concentrated upon suggestions for improving the contents of the OCCUPACS. Data was also collected relative to the effectiveness of the OCCUPAC approach for providing occupational information.

The presence of the OCCUPACS in the classrooms generated other classroom activities related to occupational information. Each teacher who participated in the field testing of the OCCUPACS was asked to supply data which would help determine the effectiveness of the OCCUPACS as a vehicle for providing occupational information. Below are two questions which were asked of each teacher. The answers were supplied by K-6 teachers.

WERE THERE ANY CLASSROOM ACTIVITIES NOT SPECIFICALLY INCLUDED IN THE OCCUPAC WHICH EVOLVED BECAUSE OF THE PRESENCE OF THE OCCUPAC IN THE CLASSROOM?

Yes. Sentences and stories. Now talked about secretaries. Teacher's job now compared to secretary's.

Yes. Children went to encyclopedias for further information on grains. You should suggest nearby grain elevators that class might tour.

Yes. We are going to scale down some of the recipes and prepare a hot lunch that we can all enjoy.

Yes. Children brought dental books from home. Teacher brought models of husband's dental work. Children drew pictures of teeth from encyclopedia.

Yes. Art work. Made nurses' caps. Students brought medicine cups, etc. to show. Visited our nurse's office and saw the sterilizer in use sterilizing instruments. (Note: OCCUPAC contained pictures and information about the sterilization of hospital tools, equipment, and instruments.)

Yes. Art work. Boys brought models of machinery. Did art work with mural.

Yes. Each wanted to do puppet shows with background and prepared own play (mostly ad lib) but they enjoyed it.

Yes. Daughter of doctor brought stethoscope and each got a turn to listen to heart beats. Also learned to wipe off ear lobes in alcohol so sanitary conditions came out.

WHAT IS YOUR OVERALL REACTION TO THIS OCCUPAC? (Let items such as pupil interest in the OCCUPAC, ease with which it can or cannot be used in the classroom, etc. help guide your response to this question.)

Children loved this OCCUPAC (Secretary). There is no trouble as to time and ease with which they work. Small typewriter would be fun and also a duplicator master per student. Get male image more involved.

My children "went nuts" over them! They are begging for more.

Most of the children were very interested and eager to work on this (Electrician). A few of the girls weren't as eager as the boys. There was little trouble in adapting this to the classroom. I would like to see this type of thing used in other areas besides vocational.

Motivation high although very little "selling" was done. The entire class did not get to do the Retail Clerk Pac, but most would have liked to if time had allowed. All completed the Chef/Cook Pac by their own choice. Those working on the Pacs were quite unobtrusive.

This worked in very well in our classroom. Most of the children were interested. One boy felt that "sewing" is just for girls. I think the idea is great.

Good! This OCCUPAC (Retail Sales Clerk) seemed easy for the students to follow and use. I did not have to explain any phase of this OCCUPAC. It seemed to interest both boys and girls.

Good! Interest very high, easy to use with the exception of the Reading Measurement activity. (Note: This has been improved).

100% good attention getter for every child. All IQ levels were impressed, entertained, and taught.

All the students seemed interested--especially the girls (Licensed Practical Nurse). We used it with ease after we decided not to use earphones. (I had to keep adjusting volume when earphones were used).

Children were very interested. All of them wanted to participate and did. We used it with ease and didn't use earphones.

Very good. Puppets bring out creativity, etc. and makes them get along easier.

Excellent--Loved wrapping themselves in bandage, etc.

One thing can be said with certainty. Students like the OCCUPACS which follow the OCCUPAC Model. Students were excited about the activities that were included in the OCCUPACS. Many students made suggestions for additional OCCUPACS that they would like to see developed. Teachers reported that sometimes the OCCUPACS presented a classroom management problem in that students did not want to "wait their turn" to work with the materials. Each classroom teacher had her own way of determining who got to go first.

Essays written by the children about the OCCUPACS reflected very positive attitudes toward the OCCUPACS. Two fourth grade students tell how they feel about the OCCUPACS:

Best of all I liked to make the teeth but my teeth did not turn out very well that we made out of soap. And the other teeth I did back at the table turned out very well. On the other one I liked the slides and the tapes I liked to. Most people would probley like Makeing the teeth better because it was a lot of fun for me.

I like the Ocuapack. You lern a lot from it. I liket the gran elavetor best.

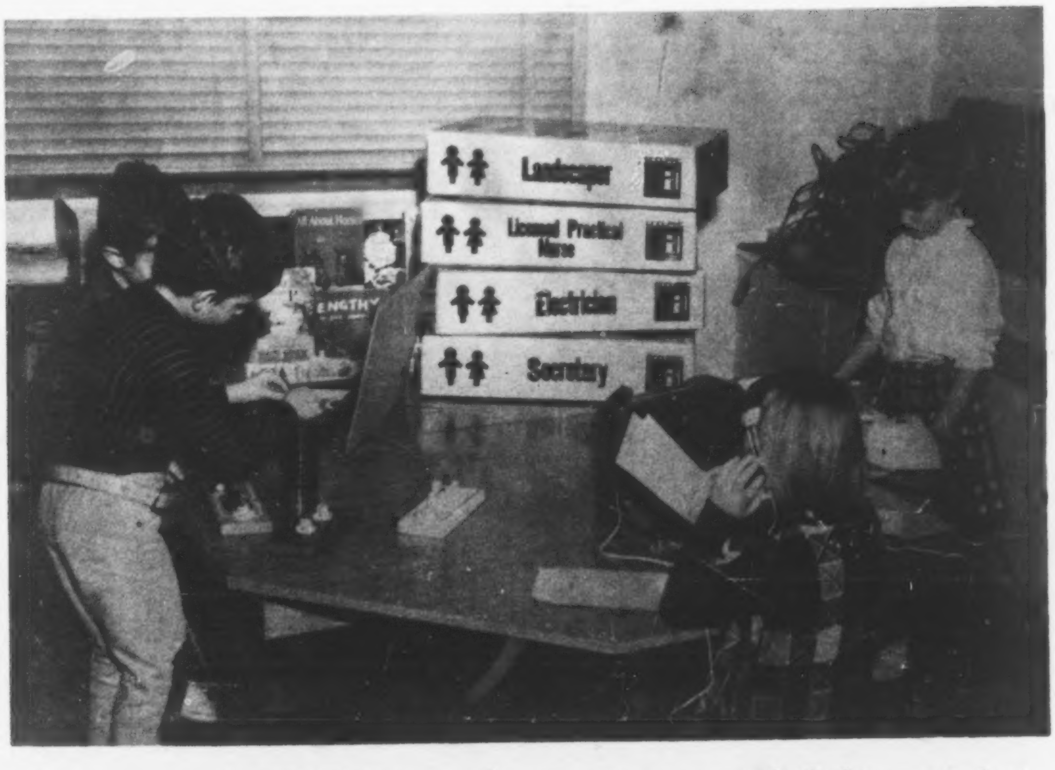
I liked the Denel asetnt to but not as good as the Gran aleveater. I liked to make teath the best on Dentel asient.

I liked to look at the ots, corn, pelets, and other things.

The E and

OCCUPACS IN THE CLASSROOM

Sometimes a more "experienced" electrician can help an apprentice.


Landscaper
Licensed Practical Nurse
Electrician
Secretary

Students can use the OCCUPACS in a small group setting or on an individual instruction basis.

The project director conducted pre-test and post-test interviews with 80 students selected at random from the field testing classrooms. Specific learning outcomes cannot be attributed to the OCCUPACS because of the lack of control groups. The developers were particularly concerned with the "behavior" of the OCCUPAC rather than any specific or substantial changes in the child. However, as was evident from the post-test interviews that the world-of-work vocabulary of students who had used the OCCUPACS had increased.

Another improvement in child behavior was noted when children were asked the question, "How would you go about finding out what worker X (perhaps an electrician) does?" In post-test interviews students at all grade levels could name at least 1.5 more ways of how to go about finding out what worker X does. Although this was an increase, no conclusions can be drawn from this data. Among other reasons, the increase could have been caused by maturation of the child. A research design, using control groups would provide more meaningful data on specific learning outcomes. However, the developers feel that the most important learning outcomes from use of the OCCUPACS are affective rather than cognitive or psycho-motor outcomes.

There were several unobtrusive measures which also provided valuable data on the effectiveness of the OCCUPACS:

1. All school systems that participated in the field testing of the OCCUPACS have requested that they would like to continue serving as an OCCUPAC field testing site.

2. Twelve additional school systems have indicated that they would like to serve as field testing sites.

3. The project director has received approximately 300 letters of inquiry about the OCCUPAC Project.

4. Visitors from school systems in Illinois, Iowa, Indiana, and Ohio have visited field testing sites or Buzzard Laboratory School classrooms to see the OCCUPACS in use.

Further elaboration on dissemination activities will be presented in Chapter V.

CHAPTER IV

RECOMMENDATIONS

Recommendations for Use of OCCUPACS (Based on Field Testing Data)

The following recommendations are intended to aid local program planning:

1. Although OCCUPACS can be used with a large group of students, students seem to prefer using the OCCUPACS on an individual instruction or small group basis.

2. Specific grade level labels for the OCCUPACS have been avoided. The OCCUPACS have been placed into general classifications of difficulty which are based on a K-3, 4-6, and 7-9 system. However, considerable flexibility among grade levels is possible. If a 5th grader wishes to use the K-3 Electrician OCCUPAC, he should be allowed to do so.

3. Build other occupational information activities into the OCCUPAC Program. Field trips, interviews, etc. are a logical introduction or a logical follow-up to OCCUPAC activities.

4. When students are totally unfamiliar with an occupation or a cluster of occupations (example--second graders in an inner city school did not know what an office was) careful consideration should be given to the sequencing of occupational information activities. In the case of the inner city students, it would have been wise to have children take a field trip to the office and then let the children work with the "hands on" activities in the OCCUPACS.

5. Children should be given time to express their feelings about various work activities in the OCCUPACS and teachers should be accepting of these feelings. The traditional counseling interview techniques would be a valuable asset for the classroom teacher.

6. Using the recommended audio-visual equipment will facilitate ease of student use of the OCCUPACS.

Recommendations for Pre-Service and In-Service Training

1. Instruction relative to teacher and counselor attitudes toward the world of work should be given at both pre-service and in-service levels.

2. Instruction relative to basic counseling, interviewing, and listening techniques should be given to those individuals charged with directing the use of OCCUPACS.

3. Instruction relative to individualizing instruction should be given to those individuals charged with directing the use of OCCUPACS.

4. Instruction should be given on how to use a variety of occupational information techniques in conjunction with the OCCUPACS.

5. Instruction should be given on career development theory and its relationship to the OCCUPAC Model.

Recommendations for Phase II of the OCCUPAC Project

1. The three experimental "topical" OCCUPACS which were developed for the junior high school level and which did not follow the OCCUPAC Model did not command student interest. It is thus recommended that Phase II efforts be concentrated on the development of OCCUPACS which follow the OCCUPAC Model.

2. The audio-visual equipment which is recommended for use with the OCCUPACS should be purchased with project funds and should be supplied to each field testing classroom during the duration of the field testing.

3. The use of Laboratory School consultants should be continued.

4. Students have made a number of suggestions for the development of additional OCCUPACS. Efforts should be made to include these suggestions in the list of OCCUPACS which will be developed in Phase II. Some of these suggestions include: auto mechanic, truck driver, beautician, cab driver, law enforcement worker, and child care aide.

5. Continued effort should be made to expand the variety of occupations for which OCCUPACS are developed. Limitation of OCCUPACS to jobs that require a certain training level also limits the child and is in essence as limiting as the community helpers approach.

6. Good quality cassette tapes should be used for all OCCUPACS.

7. Lists of classroom activities to supplement each OCCUPAC should be developed.

8. More reviewing of OCCUPACS should be done by educational leaders.

Recommendations for Additional Research, Development, and Dissemination Projects Related to K-9 Occupational Information

1. More OCCUPACS need to be developed and these OCCUPACS should represent a variety of occupations.

2. Effective pre-service and in-service procedures need to be developed for orienting teachers and counselors to K-9 occupational information. Various models for pre-service and in-service training should be developed and tested.

3. Guidelines should be developed which show how OCCUPACS and other occupational information techniques, materials, and methods can be integrated into a successful program of K-9 occupational information.

4. A permanent occupational information media center needs to be established in Illinois for the express purpose of updating, developing, and disseminating occupational information materials.

5. During the course of interviewing 80 K-9 students, a pattern seemed to be developing: As the prestige of a father's occupation increased, the less the child knew about his father's occupation and it was less likely that a child would name his father's occupation as an important occupation. This theory needs further testing. If the theory is true, then it would seem to indicate that

children in many of the affluent communities are indeed in need of occupational information.

6. Children should be interviewed to find out what they would like to know about how the life style of a worker is affected by the job he holds.

7. Procedures for the mass production of OCCUPACS should be developed.

CHAPTER V

SUMMARY OF DISSEMINATION ACTIVITIES

Overview

No formal dissemination activities were planned during the first year of the project. Major effort was directed to development of the OCCUPACS. However, as OCCUPAC development progressed and as the OCCUPACS reached the field testing stage, inquiries about the OCCUPACS were received.

As a result of interest expressed by educators and lay personnel, a number of dissemination activities emerged. This chapter summarizes some of the dissemination activities that were conducted.

Presentations to Professional Groups

The project director had to decline a number of requests to appear before professional groups because the time needed for development of materials held priority over acceptance of speaking engagements. However, the following program appearances were made during the past year or are scheduled for the coming year:

1. 2 Graduate Classes in Guidance and Counseling, Eastern Illinois University, Charleston, Illinois
2. 2 Graduate Classes in Home Economics, Eastern Illinois University, Charleston, Illinois
3. 1 Undergraduate Class in Elementary Education, Eastern Illinois University, Charleston, Illinois
4. Administration and Supervision of Programs in Occupational Education Workshop, Eastern Illinois University, Charleston, Illinois
5. Occupational Cooperative Education for Teacher Education, Eastern Illinois University, Charleston, Illinois
6. 3 Sections of the Illinois Vocational Association Convention, Chicago, Illinois

7. American Vocational Association, 1971 Annual Conference, Portland, Oregon

8. 1971 Fall Conference of Illinois Business Education Association, Springfield, Illinois

9. 1971 Vocational Guidance Seminar, K-5, Rutgers University, New Brunswick, New Jersey

10. Eastern Business Education Association, 1971 Regional Conference, Washington, D.C.

11. EXPO '71, Northern Illinois University, Dekalb, Illinois

12. DVTE-OCCUPAC Project Staff Joint Meeting, Eastern Illinois University, Charleston, Illinois

Publicity in Newspaper, Television, and Professional Journals

Newspaper Publicity. Fifteen separate newspaper releases appeared in newspapers which serve the Charleston, Decatur, Marshall, Martinsville, and Lombard, Illinois communities. In addition, the *Chicago Tribune* ran a feature article on the OCCUPAC Project. The *Tribune* article was distributed throughout the state. Examples of the news releases are shown on Page 47.

Television Publicity. Under the direction of Mrs. Gayle Strader, OCCUPAC Project Consultant, a video tape on the OCCUPAC Project was prepared and was shown on the local Cable TV channel.

WCIA (Channel 3) from Champaign-Urbana filmed a one-half hour program on the OCCUPAC Project for the "Let's Look at Learning" program. This program reached a wide viewing audience.

Publicity in Professional Journals. An article on the OCCUPAC Project will appear in one of the 1971 Fall issues of the *American Vocational Journal*. The article, which appears below, will be accompanied by three pictures which show the sequence of steps followed in developing the OCCUPACS.

OCCUPAC Project

44 REPORTER
SCHOOL NEWS FOR THE HOME
Published by Board of Education, District 44

ILLINOIS VOCATIONAL NEWSLETTER
BOARD OF VOCATIONAL EDUCATION AND REHABILITATION
Division of Vocational and Technical Education
Ray Page, Executive Officer
Sherwood Dees, Director
October 1970
405 Centennial Building, Springfield, Illinois
Vol. 24 No. 1

Coles County Daily
Times - Courier
Est. 1944 Est. 1840

OCCUPACS

Game has career info

It's capital-letter name is OCCUPACS and its aim is to provide school children with information about "grown up" occupations.

Full name of OCCUPACS is Occupational Information Learning Activity Packages for Grades K-9 Project.

Charles Joley, coordinator of field services for the Center for Educational Studies, sees the project as a method of giving youngsters information that will help them make career decisions. And, Joley believes that kindergarten is the place to start.

Learning materials contained in OCCUPACS are intended to depart from he "printed job information mat" and will include aids and activities that will appeal to elementary school and junior high school students.

included in the packets when they … dy for pilot testin… tory School and audio es, plus in ets which elate to … rporate

research r development developed fo broad occup identified in Plan for Occupations.

These categ Applied agricultural business, m management occ occupations; ind occupations; and public service occu

AFTER THE been pilot tested, field-tested in Marshall, Martinsvi. and Lomba Joley

Joley said the coined by Mrs. Mari the project direc Peterson received he the Ohio State Univers

Serving as consulta project, which is funded by the Illinois Vocational Educatio Rehabilitation, are Ray Mrs. Ann Jackson, Mrs Strader, and Carl Tau Laboratory School embers.

EIU Developing Learning Packages

Dr. Charles Joley, Coordinator of Occupational Teacher Education at Eastern Illinois University, has announced that Dr. Marla Peterson has been named director of the Occupational Information Learning Activity Packages for Grades K-9 Project at Eastern Illinois University, Charleston, Illinois. The project, a joint effort of Eastern Illinois University and the Division of Vocational and Technical Education, with a budget of $48,884, began on August 1, 1970 and is scheduled to terminate on July 30, 1971.

The primary purpose of the project will be to develop, pilot test, field test, and disseminate occupational information learning activity packages known as OCCUPACS which will be geared toward elementary school and junior high school students. OCCUPACS will incorporate research related to career development theory and will be developed for each of the five broad occupational categories identified in the Illinois State Plan for Vocational … n. Major considera… n to the … which … nto the … public schools rather than attempting to introduce a total new curriculum.

Each OCCUPAC will consist of six component parts: (1) the major concept to be learned; (2) *behavioral objectives* which will be precise statements of observable verbal or nonverbal behaviors that the student will be expected to exhibit as evidence that he has learned the concept or processes set forth in the OCCUPAC; (3) *multidimensional learning materials* which will include real objects to see and manipulate; (4) *related learning activities* which will be in addition to the sensory experiences the learner will have with the above mentioned materials; (5) *evaluation activities* which will consist of preevaluation, self evaluation and postevaluation; and (6) exploratory activities which will be optional, student-initiated activities related to the concept dealt with in the OCCUPAC. Upon completion of the project the materials developed as OCCUPAC will be available from the Professional and Curriculum Development Unit and Eastern Illinois University.

Before joining the Eastern Illinois University staff, Dr. Peterson was on the research staff of the Center for Vocational and Technical Education, Columbus, Ohio. She is the co-author of the theor… al framework for the NOE… (New Office and Business Education Learnings System) Project, a project funded by the USOE for the purpose of developing a new curriculum in business and office education.

In addition to Dr. Peterson, the project staff will include four staff members at Buzzard Laboratory School, Eastern Illinois University, two graduate student interns, and consultants from Division of Vocational and Technical Education

Eastern News
Tell the Truth and Don't Be Afraid
ERN ILLINOIS UNIV
FRI., MAY 14, 1971

Various students benefit in OCCUPAC program

The common concept of graduate work is that it involves constant reading and paper writing upon … subject su… handu… nusty … nian … nic …

program are Pat Corbin, B.S. from Southern Illinois University, doing master's work in elementary education, and Ross Wakefield, B.A. from Eastern, working on master's in Industrial Arts, with concentration in graphic arts.

THE OCCUPAC now being tested in Miss Ann Jackson's room involves industrial sewing machine operations. Other pacs to be tested later include etary, landscaper, nurse and rician.

We are using a multis… ch in the primar… ckson sa… h ma…

and they hear the sounds of work recorded at the worker's place of employment."

Miss Jackson said the children are able to manipulate the materials and that they are enjoying the OCCUPAC.

AFTER the series of five OCCUPACS has … tested in the La… n pilot in grades K-… School tested in … field Lom… ville,

working along as in a recent faculty from nois University. rking in the

Field Tests For OCCUPACS Begin Feb. 1

Charleston

Field testing of learning materials for OCCUPACS, a program providing occupational information to young students, will begin Feb. 1 in Decatur, Lombard, Marshall and Martinsville school systems.

OCCUPACS is officially known as Occupational Information Learning Activity Packages. The experimental project, presented by Eastern Illinois University, offers career counseling to school children in all grades.

The materials to be tested are aimed at the comprehension level of students in kindergarten through ninth grade. Pilot testing was done at EIU's

OCCUPAC TO BE TESTED HERE

OCCUPAC is a package of multi-sensory materials which present occupational information at a level which can be comprehended by children from kindergarten through freshman high school. It contains slides, tapes, equipment and materials used in various trades, and decision-making simulation activities.

OCCUPACS are not intended to steer children into any specific occupation. The purpose of this package is to develop realistic and wholesome attitudes toward the world of work, and to expose children to as many occupations as possible.

The program … being pilot tested at Buzzard Laboratory School at E… is University in Charleston, Illinois. … tested in Lombard, Decatur … pose is to develop … ecision will be …

The pro… Marshall, … on In thi… prototy… made r… The … of V…

OCCUPAC Project Report Presented

CHARLESTON — Reports on field tests of occupational information materials developed at Eastern Illinois University as OCCUPACS for use in elementary schools were presented at a recent OCCUPAC Project meeting held on the campus.

Teachers from Martinsville, Marshall, and Decatur told of their experience through classroom use of the materials, which are designed to acquaint students in grades kindergarten through nine with "the world of work."

Reporting were Dale Liggett, fifth grade teacher at Martinsville; Mrs. Ann Hargis, fourth grade teacher at No… Side School, Marshall; Marilyn San… teache…

Fifteen prototypes of OCCUPAC kits have been developed and about 30 more are planned. Several prototypes, including materials dealing with occupations such as electrician, secretary, licensed practical nurse, sales clerk, dental assistant and chef, are being field tested.

The OCCUPACS contain slides, tape recordings, tools, materials and other props common to the various occupations and are designed to encourage students to think in terms of a wider ra… occupations and… wholeso… use…

Occupacs develops attitudes

Field testing of OCCUPACS, packages of learning materials designed to develop in school children "wholesome attitudes toward work," will begin on Feb. 1 in four communities, according to Mrs. Marla Peterson, director of the project.

Occupational information contained in the pacs is aimed at the comprehension level of youngsters in gr… kergarten through nin… was done … School.

…ations co… electr… registered indust… opera…

TH… be easily elementary him at an e… of work.

The prog… translate theory action and materi… use. The packages there will be 15 prototypes, to be teste… schools in actual situations.

The program introduce child sooner to the world work and provides a "framewo… for selection" as Mrs. Marl… Peterson, director, commented.

THIS NEW development provides graduate students with opportunities to attend faculty meetings and communicate with universi…

…inclu… lectrician… practical …apers and …ing machine

…ades 4-6 included …ales clerks, dental grain elevator and cooks and chefs.

OF the participants in …ting program was Miss …ackson, first grade teacher. said a multi-sensory …roach was used in the …mary grades and that children worked with materials used in the occupations.

Children viewed slides of workers performing duties and they listened to sounds of work recorded at places of employment.

Tuesday and Wednesday … administrative staff from Professional and Curric… Development Unit of the Board of Vocational … and Rehabilitation … campus to review pro… project.

OCCUPACS in Use At EIU Lab School

CHARLESTON — OCCUPACS, packages of materials which present occupational information to students in grades kindergarten through nine, are being pilot tested in a first grade room in the Laboartory School at Eastern Illinois University.

Dr. Marla Peterson, director of the OCCUPACS project, says its purpose is to develop in children "realistic and wholesome attitudes toward work and to expose them to as many occupations as possible."

The OCCUPAC now being tested in Dr. Ann Jackson's room involves industrial sewing machine operations. Other pacs to be tested later include nurse, secretary, landscaper, and electrician.

"We are using a multisemsory approach in the primary grades," Dr. Jackson said. "Children work with materials used in the occupation. They view slides of the worker performing duties associated with the occupation and they hear the sounds of work recorded at the worker's place of employment."

Dr. Jackson said the children are able to manipulate the materials and that they are enjoying the OCCUPAC.

After the series of five OCCUPACS has been pilot tested in the Laboratory School in grades K–3, they will be field tested in Marshall, Martinsville, Lombard, and Decatur. Dr. Peterson said the schools were chosen for field testing "because they provide diverse settings in which to test the materials."

The program is partially funded by the Illinois Board of Vocational Education and Rehabilitation. Serving as consultants to the project, in addition to Dr. Jackson, are Dr. Ray Griffin, Mrs. Gayle Strader, and Dr. Carl Tausig, all Laboratory School staff members.

WCIA airs occupation project

by Sue Schwartz

OCCUPACS, an experimental project in familiarizing children with different occupations, will be the subject of a film to be shown Saturday at 1:30 p.m. on the "Let's Look at Learning" show on WCIA-Channel 3.

The film was made last week at the Lab School.

OCCUPACS are packages of multi-media materials which present occupational information at a level which can be comprehended by children in grades kindergarten through nine.

It contains slides, tapes, equipment and materials used in different occupations, decision-making simulation activities and props of all kinds from the "world of work."

OCCUPACS are int… not to steer childre… specific occupations, b… to develop realistic a… some attitudes toward … of work and to expose chil… to as many occupations as possible.

IN THIS, the first year of the project, the purpose is to develop models and prototypes, which are currently being pilot tested at the Lab School.

This summer, a decision is expected to be made regarding the dissemination of the materials elsewhere.

A summer workshop on Occupational Information is planned for summer, also with registrants signed up from as far as Massachusetts and Nevada.

…ing … in … at … y … project … those at the … was Sherwood Dees, …ector of the State Division of Voc… Educati… undertal… Educati… is suppc… and Divisio…

Decatur Elementary Schools To Join EIU Experiment

Charleston

Decatur elementary schools will be part of an Eastern Illinois University experiment in providing occupational information to young students.

O C C U P ACS—Occupational Information Learning Activity Packages for grades kindergarten through 9 project, is now being pilot tested in Dr. Ann Jackson's first grade room in the Buzzard Laboratory School on the EIU campus.

The OCCUPAC now being tested in Dr. Jackson's room involves industrial sewing machine operations. Other 'pacs' to be tested later include secretary, landscaper, nurse and electrician.

The children view slides of the worker performing duties associated with the occupation and they hear the sounds of work recorded at the worker's place of employment.

After the series of OCCUPACS have been tested at the laboratory school in grades kindergarten through third, they will be field tested in Marshall, Martinsville, Lombard and Decatur.

Dr. Marla Peterson, director of the OCCUPACS project, said the schools were chosen because they "provide diverse settings in which to test the materials."

The program is partially funded by the Illinois Board of Vocational Education and Rehabilitation.

OCCUPACS Videotape Scheduled

CHARLESTON — A video-tape depicting the use of OCCUPACS in the Laboratory School at Eastern Illinois University will be shown by GTEC Cable TV on channels 3 and 11 on Friday and Saturday, Jan. 22 and 23, at 6 p.m.

OCCUPACS are packages of learning materials designed to develop in school children "wholesome attitudes toward work." Occupational information contained in the pacs is aimed at the comprehension level of youngsters in grades kindergarten through nine.

Pilot testing in the Laboratory School was done in divisions K-3 and grades 4-6. OCCUPACS in K-3 includes materials relating to the occupations of electricians, secretaries, licensed practical nurses, landscapers, and industrial sewing machine operators.

Pacs for grades 4-6 include occupations of carpenters, sales clerks, dental assistants, grain elevator managers and cooks-chefs.

The pacs will be field tested in February in schools in Marshall, Martinsville, Decatur and Lombard. The video-tape was produced by the Audio-Visual Services at Eastern.

Work Attitudes Kits Developed

Field testing of OCCUPACS, packages of learning materials designed to develop in school children "wholes… attitudes toward work," began Feb. 1 in four communities according to Dr. Marla Peterson, director of the project at Eastern. [illegible] Pilot testing was done at the Laboratory School at Eastern. The four … field testing … and Martinsville … [illegible]

Career Guidance Program To Be Tested at Buzzard

CHARLESTON — It's capital letter name is OCCUPACS and its aim is to provide school children with information about "grown up" occupations.

Full name of OCCUPACS is Occupational Information Learning Activity Packages for Grades K-9 Project at Eastern Illinois University.

Dr. Charles Joley, Coordinator of Field Services for the Center for Educational Studies at Eastern, sees the project as a method of giving youngsters information that will help them make career decisions. And Dr. Joley believes that kindergarten is the place to start.

Learning materials contained in OCCUPACS are intended to depart from the "printed job information format" and will include aids and activities that will appeal to elementary school and junior high school students.

Included in the packets when they are ready for pilot testing at the Laboratory School at Eastern will be such visual and audio aids as slides and tapes, plus, in some instances, puppets which the youngsters can relate to real-life occupations.

OCCUPACS will incorporate research related to career development theory and will be developed for each of the five broad occupational categories identified in the Illinois State Plan for Vocational Occupations.

These categories are: Applied Biological and Agricultural Occupations; Business, Marketing and Management Occupations; Health Occupations; Industrial-oriented Occupations, and Personal and Public Service Occupations.

After the materials have been pilot-tested, they will be field-tested in schools in Marshall, Martinsville, Decatur, and Lombard, Joley said.

Joley said the name was coined by Dr. Marla Peterson, the project director

Article to be published
in forthcoming issue of
American Vocational Journal

OCCUPAC: A Multi-Media Approach for Presenting K-9 Career Information

Marla P. Peterson, Director
OCCUPAC Project

The question of whether or not career information should be presented in the elementary school is no longer a debatable one. Attitudes, needs, values, and interests--vital elements in the eventual choice of a career are influenced by the learning experiences presented during the elementary school years.

However, the approaches to be used for presenting K-9 career information are debatable. Certainly the printed job information format so commonly used in the high school cannot be the major career information vehicle used in the elementary school. Field trips, interviews, and the other often-suggested procedures for supplying career information at the high school level can also be used in the elementary school. However, new approaches for presenting K-9 career information are needed.

Need for New Approaches. No matter how energetic or how resourceful a classroom teacher or elementary counselor may be, he cannot be an encyclopedia of information on careers.

> New Approach Need No. 1: Materials must be developed which are not solely dependent upon the teacher or counselor.

Elementary school occupational information should be extended beyond the "community helpers" approach which has been so prevalent in the past. The fireman, the policeman, and the grocer are worthwhile occupations, but so are the licensed practical nurse, the secretary, and the electrician.

> New Approach Need No. 2: Materials must be developed which expose elementary school children to a variety of occupations.

The narrow range of occupations which has been presented to elementary school children coupled with the fact that many classroom teachers are oriented toward the professions have unintentionally built in the eyes of many children a low prestige image of some occupations.

> New Approach Need No. 3: Materials must be developed which build wholesome attitudes toward all useful work.

Children learn by seeing, talking, listening, and doing. Seeing, talking, and listening have generally been included in traditional approaches for presenting K-9 occupational information. However, doing--the very thing to which career information readily lends itself has been neglected.

> New Approach Need No. 4: Materials must be developed which use a multi-media approach. Seeing, talking, listening,and doing must all be included.

The OCCUPAC Approach Emerges. If an educator had walked into the Lombard, Decatur, Marshall, or Martinsville, Illinois public schools during February and March of last year, he would have seen some of the following sights: first graders viewing slides of an electrician at work, listening to tapes on the work of an electrician, and wiring up light bulbs and switches to get the "feel" for what an electrician does; fourth graders making study models of dentures by using the rubber molds, plaster-like material, etc. that dental assistants use; sixth graders setting up cash register drawers, writing sales slips, and using state sales tax guides to simulate the work of a retail sales clerk. He would have seen little teacher assistance taking place because all the children were being guided by taped and printed directions in an individual instruction approach. In short, he would have seen an occupational information approach which meets the four needs outlined above.

These four Illinois schools served as field testing sites for a unique project which has its headquarters at The Center for Educational Studies, Eastern Illinois University, Charleston, Illinois. The project has come to be known as the OCCUPAC Project. It derives its name from the OCCUPACS--the packages of multi-media elementary school occupational information materials which are being developed by the project staff. The project is supported with funds from the Professional and Curriculum Development Unit of the Illinois State Division of Vocational and Technical Education. The project staff is housed in the

Buzzard Laboratory School of Eastern Illinois University--the school in which pilot testing of the OCCUPACS takes place.

OCCUPAC Progress to Date. During the first year of operation 15 prototype OCCUPACS have been developed. As illustrated earlier, tapes, slides, "sounds" of work, simulated work activities, and "props" of all kinds from the REAL WORLD OF WORK have been assembled into the OCCUPACS. Many dimensions of an occupation are presented. For example, in the licensed practical nurse OCCUPAC children are told that LPN's sometimes have to work during evening hours and on weekends and holidays. LPN's also must expect to do some lifting and they will undoubtedly see people with injuries and broken bones.

The self has not been forgotten. After children look at and work with the various materials that are in the secretary OCCUPAC, the taped commentary asks them questions like, "Do you think you would enjoy answering the telephone? Are you a neat person or are you messy? Would you like to do what your boss asks you to do? Did you enjoy trying to write some shorthand?"

The Future of OCCUPAC. Contingent upon continued funding, plans are already under way to develop 30 more OCCUPACS during the coming year. Public school demand for the OCCUPACS has been so intense that the field testing sites will be increased. The supporting pre-service and inservice training materials to prepare teachers for presenting all types of K-9 occupational information will also be developed.

OCCUPACS are meeting a felt need being expressed by public schools--the need for occupational information and pre-vocational materials specifically geared to the cognitive level and the interest level of elementary school children. It is through the use of materials such as the OCCUPACS that a truly developmental approach to career preparation can take place in American schools.

March, 1971

Brochures and Fact Sheets

Approximately 300 letters of inquiry about the project were received. Several types of information were prepared and were used to answer letters of inquiry.

A series of project fact sheets known as OCCUPAC Facts were developed. New OCCUPAC Fact sheets were prepared as new project developments occurred. A brochure which described the general nature of the project was also prepared.

An attempt was made to keep Eastern Illinois University faculty members and students aware of OCCUPAC Project progress and materials and services which could be provided by the OCCUPAC Project staff. Samples of the memorandum sent to faculty members, and samples of the OCCUPAC Fact Sheet and brochure are found on Pages 52, 53, and 54, respectively.

Center for Educational Studies
Eastern Illinois University
March 31, 1971

MEMORANDUM

To: Faculty of Education Staff
Business Education Staff
School of Health, Physical Education, and Recreation Staff
School of Home Economics Staff
School of Industrial Arts and Technology Staff

From: Marla Peterson, Director
OCCUPAC Project

Since August of 1970 a project known as the OCCUPAC Project has been in operation on the Eastern Illinois University campus. The project is supported by funds from the Illinois Division of Vocational and Technical Education and has as its purpose the development of K-9 occupational information learning activity packages--hence the name OCCUPAC.

During this first year of operation the OCCUPAC Project staff has primarily devoted its efforts to the development of 15 prototype OCCUPACS. The OCCUPACS involve a multi-media approach and are for the most part, self instructional. The fifteen prototype OCCUPACS have now reached the field testing stage.

Prevocational education and career education starting at the Kindergarten level is a concept which is rapidly being introduced into the elementary school curriculum. State departments of education and colleges of education in each of the 50 states are currently seeking ways to develop sound programs of prevocational education. The reason for introducing career information into the elementary school is based on a sound premise: child development data reveals that attitudes, values, interests, and needs--vital elements involved in the eventual choice of an occupation--are influenced by the types of learning experiences provided for the child.

Some of you have already requested our assistance in providing input into your classes. Instructors in guidance and counseling, curriculum, business education, and home economics have used various materials that we have available for explaining the OCCUPAC Program. If you would like any of the following materials, just call me at 1-2620 or send a request to me in Room 208, Buzzard Laboratory School:

Materials Available on the OCCUPAC Project:

1. Copies of OCCUPAC FACTS and the OCCUPAC brochure for distribution to your classes.
2. Slide presentation by OCCUPAC staff member.
3. Sample OCCUPACS (available for loan)
4. Copies (available for loan) of career development curriculum guides which are being prepared by various school systems in the state.

OCCUPAC

OCCUPAC FACTS

#2. March, 1971

Center for Educational Studies
Eastern Illinois University
Charleston, Illinois 61920

WHAT IS AN OCCUPAC?

An OCCUPAC is a package of multi-media materials which present occupational information at a level which can be comprehended by children in grades K-9. The OCCUPAC contains slides, tapes, equipment, and materials used in different occupations, decision-making simulation activities, and props of all kinds from the real "World of Work."

WHAT IS THE PURPOSE OF AN OCCUPAC?

OCCUPACS are not intended to steer children into specific occupations; rather it is their intent to: (1) develop realistic and wholesome attitudes toward the world of work, and (2) expose children to as many occupations as possible.

WHAT GRADE LEVELS ARE OCCUPACS DESIGNED FOR?

OCCUPACS are designed for students in grades K-9. Divisions are: K-3, 4-6, and 7-9. Each division has 5 OCCUPACS designed for that level's comprehension and interest.

HOW MANY OCCUPACS HAVE NOW BEEN COMPLETED?

Five OCCUPACS for grades K-3 and five OCCUPACS for grades 4-6 have been completed and are being field tested. The five K-3 OCCUPACS are: electrician, secretary, licensed practical nurse, landscaper, and industrial sewing machine operator. The five 4-6 OCCUPACS are: carpenter, sales clerk, dental assistant, grain elevator manager, and chef/cook. Five 7-9 OCCUPACS are currently in the development stage. The 7-9 OCCUPACS will contain clusters of occupations and will include clusters such as food technology and computer technology.

WHERE ARE OCCUPACS BEING PILOT AND FIELD TESTED?

OCCUPACS are being pilot tested at Buzzard Laboratory School, Eastern Illinois University, Charleston, Illinois. They will be field tested in four public school systems which are intended to give a cross section of environments from rural to urban and from small town to suburb. The systems are: Decatur, Lombard, Marshall, and Martinsville.

WHEN WILL OCCUPACS BE AVAILABLE FOR MY SCHOOL SYSTEM?

In this first year of the project, the purpose is to develop models and prototypes. It is anticipated that during the summer of 1971 a decision will be made regarding dissemination of materials.

ARE SPEAKERS AVAILABLE?

Yes, however, there are no funds available for transporting speakers to the requesting party. The group requesting a speaker must incur the speaker's expenses. Those interested should contact: Marla Peterson, Room 208, Buzzard Laboratory School, Eastern Illinois University, Charleston, Illinois, 61920, or call 217-581-2620.

WHO IS ON THE OCCUPAC STAFF?

The staff is as follows: Director, Dr. Marla Peterson; faculty assistants, Ross Wakefield and Patricia Corbin; consultants, Dr. Raymond Griffin, Dr. Carl Tausig, Dr. Ann Jackson, and Mrs. Gayle Strader.

The OCCUPAC Project is supported by funds from the Division of Vocational and Technical Education, State of Illinois.

What is an OCCUPAC?

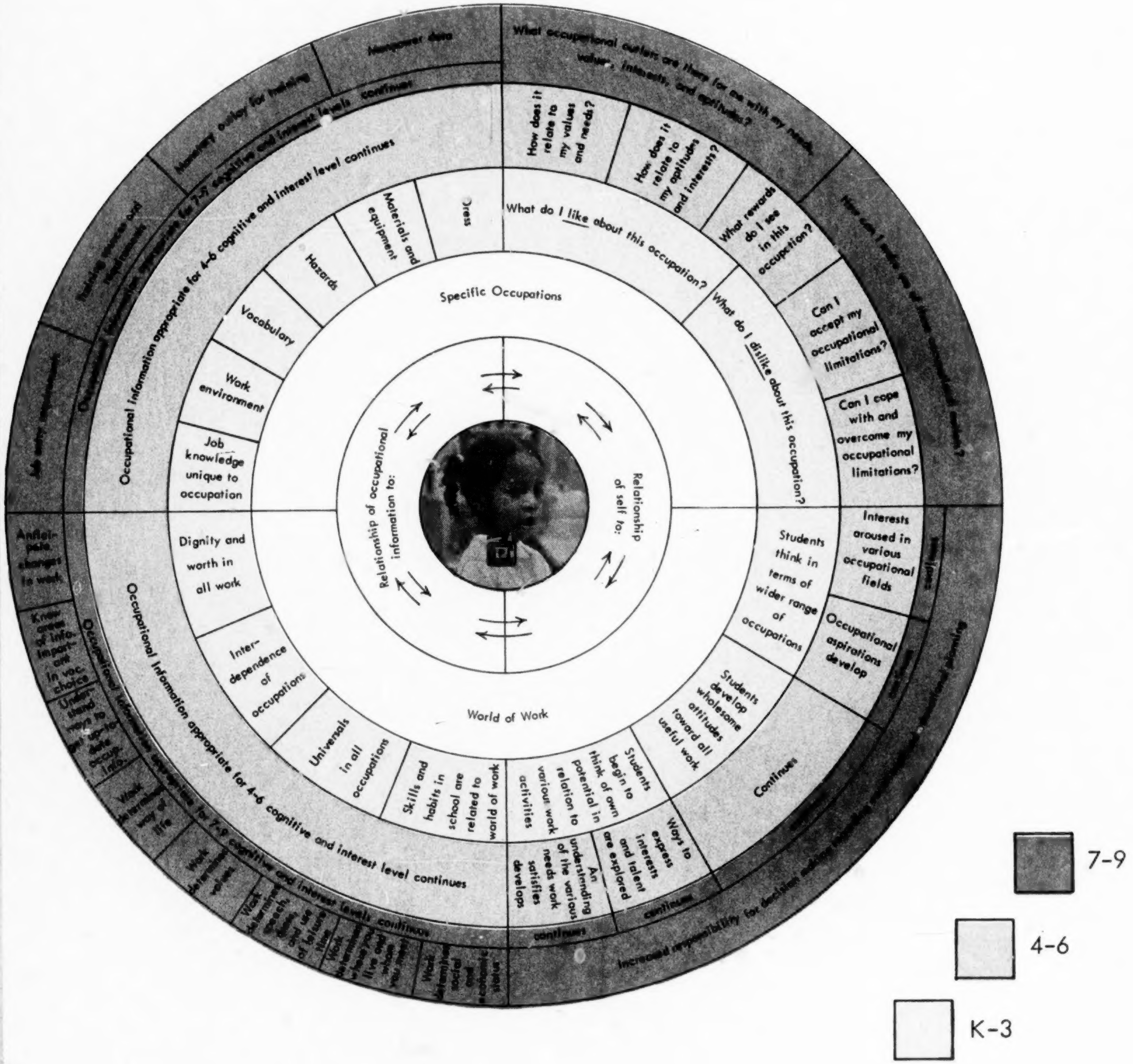
- **An OCCUPAC is a package of multisensory materials that presents occupational information at a level which can comprehended by K-9 students.**

- **Among the multisensory materials contained in the OCCUPACS are: slides, tapes, the "sounds" of work, equipment and materials used in various occupations, decision-making simulation activities, puppets, and "props" of all kinds from the REAL WORLD OF WORK.**

For additional project information, write:
Dr. Marla Peterson, Director
OCC' AC Project
208 Buzzard Laboratory School
Eastern Illinois University
Charleston, Illinois 61920

OCCUPAC

OCCUPAC –
a concept devoted to the
INDIVIDUALIZING of K-9 OCCUPATIONAL INFORMATION
learning materials. . . . .



Relationship of self to:
Relationship of occupational information to:
Specific Occupations
World of Work
What do I like about this occupation?
What do I dislike about this occupation?
Dress
Materials and equipment
Hazards
Vocabulary
Work environment
Job knowledge unique to occupation
Dignity and worth in all work
Inter-dependence of occupations
Universals in all occupations
Skills and habits in school are related to world of work
Students begin to think of own potential in relation to various work activities
Students develop wholesome attitudes toward all useful work
Students think in terms of wider range of occupations
How does it relate to my values and needs?
How does it relate to my aptitudes and interests?
What rewards do I see in this occupation?
Can I accept my occupational limitations?
Can I cope with and overcome my occupational limitations?
Interests aroused in various occupational fields
Occupational aspirations develop
Ways to express interests and talent are explored
An understanding of the various needs work satisfies develops
Continues
continues
Occupational Information appropriate for 4-6 cognitive and interest level continues
Occupational Information appropriate for 7-9 cognitive and interest levels continues
What occupational outlets are there for me with my needs, values, interests, and aptitudes?
Manpower data
Increased responsibility for decision making
Anticipate changes in work
7-9
4-6
K-3

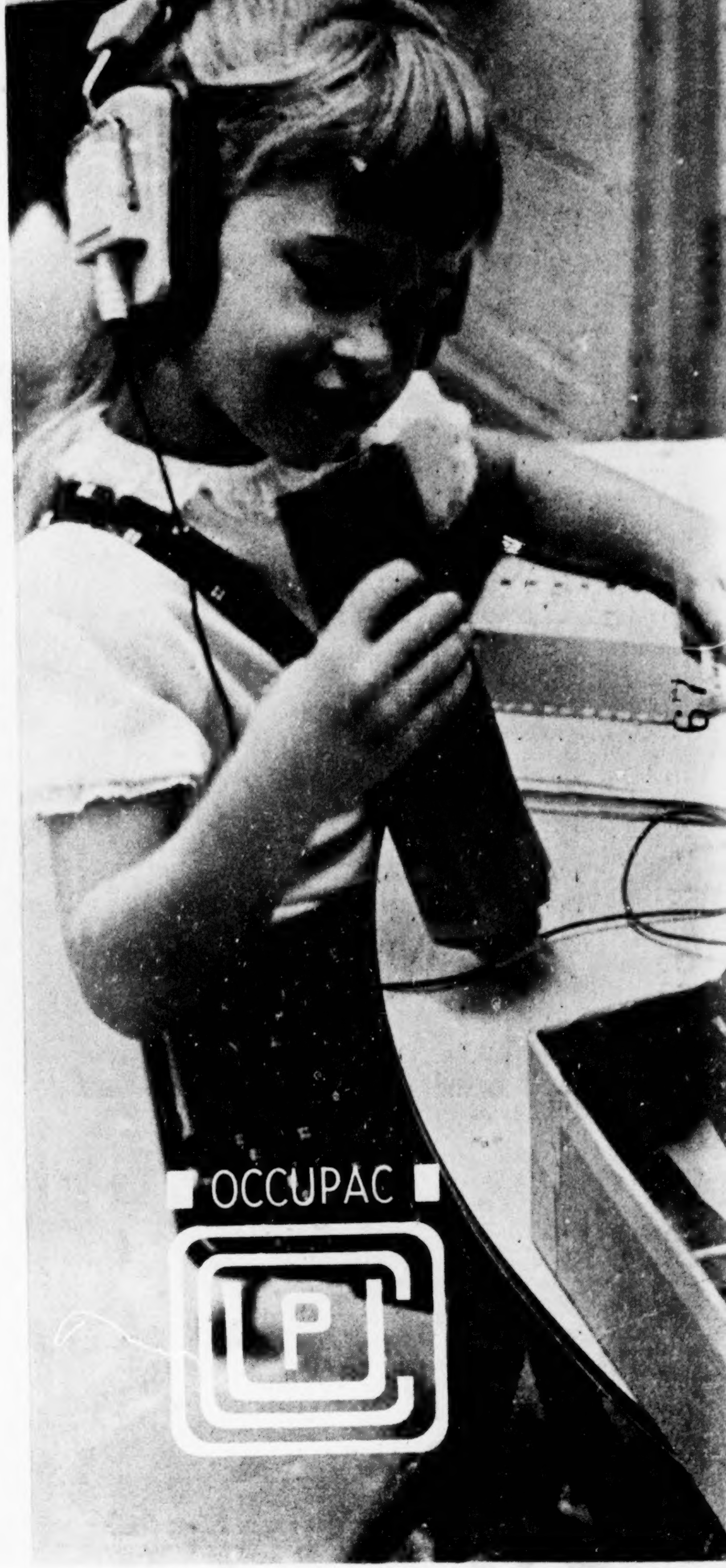
Supported by funds from the Division
of Vocational and Technical
Education, State of Illinois

in cooperation with
The Center for Educational Studies,
Eastern Illinois University

Photographs taken at
Buzzard Laboratory School,
Eastern Illinois University—OCCUPAC
development and pilot testing site.

OCCUPAC

Dr. Marla Peterson, Director
OCCUPAC Project
208 Buzzard Laboratory School
Eastern Illinois University
Charleston, Illinois 61920



OCCUPAC Project Mid-Year Progress Report

After ten OCCUPACS had been developed and were in the field testing stage, the OCCUPAC Project Staff presented a progress report to the Illinois Division of Vocational and Technical Education Staff members. Sherwood Dees, State Director of Vocational and Technical Education, and members of his staff were in attendance at the meeting. A schedule of the day's events and a complete roster of participants appears on Pages 56, 57, and 58.

OCCUPAC PROJECT MEETING

April 7, 1971

Schedule of Events

10:00 - 10:30	COFFEE HOUR, Home Arts Room, Buzzard Laboratory School
10:30 - 11:00	WELCOME TO EASTERN ILLINOIS UNIVERSITY Dr. Harry Merigis Dean, Faculty of Education INTRODUCTION OF PROJECT OCCUPAC Dr. Charles L. Joley Coordinator of Occupational Teacher Education OVERVIEW OF THE OCCUPAC PROJECT Dr. Marla Peterson, Director OCCUPAC Project
11:00 - 12:15	CLASSROOM VISITATIONS TO SEE OCCUPACS IN USE AND VIEWING OF OCCUPACS IN HOME ARTS ROOM Room 113: Dr. Ann Jackson, 1st Grade Room 109: Mrs. Rosemary Reece, 2nd Grade
12:15 - 1:15	LUNCH, Heritage Room, University Union
1:15 - 2:30	REPORTS FROM FIELD TESTING TEACHERS AND OPEN DISCUSSION Mr. Dale Liggett, 5th Grade Teacher City Elementary School Martinsville, Illinois Mrs. Ann Hargis, 4th Grade Teacher North Side School Marshall, Illinois Miss Marilyn Sander, 2nd Grade Teacher Ullrich Elementary School Decatur, Illinois

OCCUPAC PROJECT MEETING

April 7, 1971

ROSTER OF PARTICIPANTS

Howard E. Avery,
Head Consultant
Guidance
Special Programs Unit
Division of Vocational and
Technical Education
Springfield, Illinois

Mrs. Patricia Corbin,
Faculty Assistant
OCCUPAC Project
Eastern Illinois University
Charleston, Illinois

Joe Daly, Consultant
Professional and Curriculum
Development Unit
Division of Vocational and
Technical Education
Springfield, Illinois

Dale Davis, Principal
North Side School
Marshall, Illinois
(Field Testing Site)

Sherwood Dees, Director
Division of Vocational and
Technical Education
Springfield, Illinois

Claudia Durham, Consultant
Personal and Public Service
Occupations
Occupational Consultant
Unit
Division of Vocational and
Technical Education
Springfield, Illinois

James Galloway, Coordinator
Program Approval and
Evaluation Unit
Division of Vocational and
Technical Education
Springfield, Illinois

Dr. Donald Gill, Principal
Buzzard Laboratory School
Eastern Illinois University
Charleston, Illinois

Dr. Raymond Griffin, Consultant
to OCCUPAC Project and
Industrial Arts Teacher
Buzzard Laboratory School
Eastern Illinois University
Charleston, Illinois

Mrs. Ann Hargis, OCCUPAC
Field Testing Teacher
North Side School
Marshall, Illinois

Lonnie Hart, Assistant Coordinator
Professional and Curriculum
Development Unit
Division of Vocational and
Technical Education
Springfield, Illinois

Dr. Ann Jackson, Consultant
to OCCUPAC Project and
1st Grade Teacher
Buzzard Laboratory School
Eastern Illinois University
Charleston, Illinois

Dr. Charles L. Joley, Coordinator
of Occupational Teacher Education
Eastern Illinois University
Charleston, Illinois

John Klit, Assistant Coordinator
Program Approval and Evaluation Unit
Division of Vocational and
Technical Education
Springfield, Illinois

Mr. Dale Liggett, OCCUPAC
Field Testing Teacher
City Elementary School
Martinsville, Illinois

Dr. Harry Merigis, Dean
Faculty of Education
Eastern Illinois University
Charleston, Illinois

Dr. Marla Peterson, Director
OCCUPAC Project
Eastern Illinois University
Charleston, Illinois

Mrs. Jane Pollard, Principal
City Elementary School
Martinsville, Illinois
(Field Testing Site)

Harry Read, Director
Information--Publications
Eastern Illinois University
Charleston, Illinois

Mrs. Rosemary Reece,
2nd Grade Teacher
Buzzard Laboratory School
Eastern Illinois University
Charleston, Illinois

William E. Reynolds,
Coordinator
Professional and Curriculum
Development Unit
Division of Vocational and
Technical Education
Springfield, Illinois

Miss Marilyn Sander, OCCUPAC
Field Testing Teacher
Ullrich School
Decatur, Illinois

Mrs. Doris Shawler
Curriculum Coordinator
Marshall Public Schools
Marshall, Illinois
(Field Testing Site)

Mrs. Gayle Strader, Consultant
to OCCUPAC Project and
Home Economics Teacher
Buzzard Laboratory School
Eastern Illinois University
Charleston, Illinois

Dr. Carl Tausig, Consultant
to OCCUPAC Project and
6th Grade Teacher
Buzzard Laboratory School
Eastern Illinois University
Charleston, Illinois

James Taylor, Principal
Martinsville Junior and
Senior High School
Martinsville, Illinois

Lynn Troute, Special Programs
Unit
Division of Vocational and
Technical Education
Springfield, Illinois

Ross Wakefield,
Faculty Assistant
OCCUPAC Project
Eastern Illinois University
Charleston, Illinois

Correspondence Received by Project Director

Perhaps the greatest asset of the OCCUPAC approach is that materials contained in the OCCUPACS are meeting a need expressed by public schools--the need for occupational information materials specifically geared to the interest and cognitive levels of K-9 students. The following excerpts taken from correspondence received by the project director are indicative of the interest in the OCCUPACS that is being shown by public schools and other educational agencies:

> Just a note to say if you need additional schools to field test the OCCUPAC Project, please contact us for we are quite interested in this project.
>
> --James W. Bliler
> Assistant Superintendent
> Shelbyville Community Unit
> School District # 4
> Shelbyville, Illinois

> Mt. Zion Community Unit is interested in your publication titled "Occupak". (sic) You may either send us the price of it and we will send you a check, or you may send it to us and bill us for it.
>
> --Brent Milnor, Principal
> Mt. Zion Community Unit Schools
> District No. 3
> Mt. Zion, Illinois

> We are in the process of trying to work out some type of Vocational Guidance program in the elementary schools here and naturally I thought of you. I wondered how your work was going on the vocational materials for elementary schools. If you should have any materials ready (at this early date), we would appreciate having a chance to see them, or if it would be more convenient, maybe I could arrange a time to come back to Charleston and meet with you about the project.
>
> --Mary Morris, Guidance Counselor
> Vandalia Community Schools
> Unit District 203
> Vandalia, Illinois

Would it be possible for our school to order a Pre-School--K Pac, with the option to buy several if the other directors approve?

--Virginia Walsh
Montessori School of
Champaign
Urbana, Illinois

Am informed that you have a pilot program in vocational education for grades K-8. May we have a copy of the program?

--Lee Rushing, Principal
Central Community Unit
Schools
District # 4
Clifton, Illinois

May we become involved in your project during the remaining part of this school year or if that is not feasible, may we start planning to be involved in the 1971-72 school year?

--George Pintar, Superintendent
Divernon Community Unit
District # 14
Divernon, Illinois

I am writing in regards to information about your project entitled "Occupational Information Learning Packages K-9 (OCCUPAC)". I will appreciate any material or information you have available.

--Otto Mattei, Supervisor
Bowling Green City Schools
Bowling Green, Kentucky

Will you please place me on your mailing list for any materials you develop? I would appreciate receiving the OCCUPACS already being field tested.

--Delma Turner, Supervisor
Elementary School Guidance
State of Arkansas
Department of Education
Little Rock, Arkansas

We should appreciate it if you would send us whatever materials and information you have developed or accumulated in this whole area of career development and career orientation.

--Florence G. Bailey
State Department of Education
Richmond, Virginia

My Council has become extremely interested in Career Development Programs and would like to know more about the OCCUPAC Project.

--Richard J. Collins
Executive Director
Advisory Council for Vocational-Technical Education
State of Vermont
Montpelier, Vermont

The OCCUPAC Project looks very good and should be an excellent tool to provide information to the world of work.

--Ralph W. Mikkelsen
Assistant Director
Development of Vocational and Occupational Skills
State of Montana
Helena, Montana

While visiting with some school people in DuPage County Illinois this week, I heard many fine things about the occupational awareness kits you people have developed called "Occ-u-pak". (sic) Will you please be kind enough to send me any descriptive information available about this program?

--Dr. William E. Martin, Director
Vocational and Continuing Education
Fort Wayne Community Schools
Fort Wayne, Indiana

I am currently involved in developing a review and synthesis of information on occupational exploration. . . . I would like to secure a project description so that it might be included in the review.

--Wesley E. Budke
Information Specialist
The Center for Vocational and Technical Education
The Ohio State University
Columbus, Ohio

> We are engaged in a somewhat similar project, as described in the enclosed newsletter. While it is too early to have much else to share with you at this time, we will be happy to send you information later on, if you wish. We would appreciate the opportunity to review any materials you might have available.
>
> --John J. Geil, Assistant Professor
> Co-Director, PROJECT LOOM--
> Learner Oriented Occupational Materials
> The Florida State University
> Tallahassee, Florida

Professional organizations are already beginning to show interest in the OCCUPACS. The following letter which was written by Dr. Robert Griffiths, Past President of the American Dental Society of Anesthesiology, is representative of support that is being shown by professional organizations.

THE DENTAL BUILDING
Phone 345-3410
1063 SOUTH TENTH STREET
P. O. Box 177
CHARLESTON, ILLINOIS 61920

ROBERT H. GRIFFITHS, D.D.S.
JAMES M. PADGETT, D.D.S.
R. ERIK LEE, D.D.S.

May 14, 1971

Mr. William A. Garrison
American Dental Association
211 E. Chicago Avenue
Chicago, Illinois 60611

Dear Mr. Garrison:

I called your office on Friday, May 14, and talked with your secretary relative to the Occupac project being conducted here in Illinois. I was asked to cooperate with Eastern Illinois University and their project director, Marla Peterson, in developing a program on dental assisting. The intent was to compile materials that could be used to stimulate youngsters at the lower grade level to consider careers in the various occupations. The one which we were concerned with was dental assisting. Occupacs have been developed for various other occupations and are being used as a pre-vocational type of impetus for stimulation of thinking relative to careers in given fields.

I have just reviewed the Occupac on dental assisting and thought it was excellently done and certainly, would be something dentistry should be interested in. I have every reason to believe that you as a career coordinator for the American Dental Association would find this to be a great advantage to you in helping people find materials relative to career guidance. I don't know what you would choose to do in regard to the project, but I would very much like to have you take the time to review the material with Mrs. Peterson to ascertain what, if anything, the American Dental Association would be interested in doing with the project. I might add that this has been developed through the sponsorship of the Vocational Education Department of the State of Illinois. I would feel that the very least the American Dental Association would be interested in doing would be to get material to distribute relative to where these materials could be obtained and what they are all about. Perhaps, you might even wish to go further. I will have Mrs. Peterson contact you since she has all of the knowledge and a grasp for the details relative to the program. I sincerely feel that the program deserves someone at the American Dental Association taking some time to review it and ascertain of what benefit we can make of it.

Sincerely,

Robert H. Griffiths, D. D. S.

RHG/meh

cc: Marla Peterson
Eastern Illinois University
Charleston, Illinois 61920

Industries, Businesses, and Institutions Reached by OCCUPAC Activities

The OCCUPACS are of such a nature that in the course of gathering data and materials for the OCCUPACS many industries, businesses, and institutions learned about project activities. The following agencies cooperated with the OCCUPAC Project staff:

Blaw Knox
E. Route 16
Mattoon, Illinois

Central Communications
Company
115 S. 17th
Charleston, Illinois

Chamber of Commerce
501 Jackson
Charleston, Illinois

Chamber of Commerce
Room 368
Citizens Building
250 N. Water Street
Decatur, Illinois

Chamber of Commerce
1301 Welton Street
Denver, Colorado

Charleston Community
Memorial Hospital, Inc.
825 18th
Charleston, Illinois

Computer Center
Eastern Illinois University
Charleston, Illinois

Crawford Shoe and Garment
Mfg. Co.
1801 Lakeland Blvd.
Mattoon, Illinois

William Fury (Farm)
Charleston, Illinois

Greenhouse
Eastern Illinois University
Charleston, Illinois

Dr. Robert Griffiths, D.D.S.
1063 10th
Charleston, Illinois

Health Service
Eastern Illinois University
Charleston, Illinois

Holiday Inn of America
E. Route 16
Mattoon, Illinois

Home Economics Department
Eastern Illinois University
Charleston, Illinois

Dental Assistant Program
Lakeland College
Mattoon, Illinois

Phipps Cradle and Tot and
Jr. Shop
106 South 16th
Mattoon, Illinois

Physical Plant
Eastern Illinois University
Charleston, Illinois

Purchasing Department
Eastern Illinois University
Charleston, Illinois

Reasor Corporation
500 West Lincoln
Charleston, Illinois

Residence Hall Food Service
Eastern Illinois University
Charleston, Illinois

Rupel Grain Company
104 N. 5th
Charleston, Illinois

Ted Schwartz, Building Contractor
Charleston, Illinois

University Union
Eastern Illinois University
Charleston, Illinois

Wilb Walker Supermarket
505 West Lincoln
Charleston, Illinois

APPENDIX A

INSTRUCTIONAL GUIDE

FOR

K-3 OCCUPACS

prepared by

The OCCUPAC Project Staff:

Dr. Marla Peterson, Director

Patricia Corbin, Project Assistant
Ross Wakefield, Project Assistant

Dr. Ray Griffin, Consultant
Industrial Arts

Dr. Carl Tausig, Consultant
Elementary Education

Dr. Ann Jackson, Consultant
Elementary Education

Mrs. Gayle Strader, Consultant
Home Economics

Supported by funds from the Division of Vocational and Technical Education, State of Illinois, in cooperation with the Center for Educational Studies, Eastern Illinois University, Charleston, Illinois.

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FOREWORD

The question of whether or not occupational information has a place in the elementary school is no longer a debatable one. Child development data reveals that aptitudes, attitudes, values, interests, and needs--vital elements involved in the eventual choice of an occupation--are influenced by the types of learning experiences provided for the child.

Specific suggestions for "what to do" when exposing children to occupational information are more debatable. Today's educator is looking for more than mere "how to do it" cookbook-type solutions. He knows the problems facing the schools today are too complex to be solved by magical panaceas, such as new teaching machines, or simple revisions of administrative or instructional procedures. Today's educators are looking for ideas solidly grounded in basic and applied scientific research--ideas which, while practical and capable of implementation are not simplistic--ideas of intelligent men and women, designed to be discussed and put into practice by other intelligent men and women.

At the onset of Phase I of the OCCUPAC Project, the OCCUPAC Project staff determined that the results of existing research on child development and career development theory should be thoroughly reviewed before work could begin on the development of occupational information materials. The staff

also determined that once this theory was applied to the development of occupational information materials, the products of their efforts should be pilot tested in a laboratory school setting and then field tested in a variety of public school settings.

The OCCUPAC project staff was aware that because of the diverseness of occupational information, ways had to be developed which would not be wholly dependent upon the occupational information knowledge possessed by the teacher or counselor. No matter how energetic, how resourceful, or how interested the classroom teacher or counselor might be in presenting occupational information, no one teacher or counselor can serve as an encyclopedia of information on occupations.

Thus, an approach emerged which for the most part uses an individual instruction approach. The heart of the individual instruction approach are the packages of occupational information materials known as OCCUPACS. The instructional guide will elaborate further on the OCCUPACS.

The project director is most grateful to Dr. Donald Gill and the entire instructional staff at Buzzard Laboratory School, Eastern Illinois University, Charleston, Illinois. Their spirit and cooperation throughout the development and pilot testing of the OCCUPACS were appreciated. The Decatur, Lombard, Marshall, and Martinsville, Illinois Public Schools served as field testing sites.

The cooperation of these school systems made possible the production of a product which was tested in a cross section of localities and environments.

Marla Peterson, Director
OCCUPAC Project

I. THE OCCUPACS

Definition and Overview

An OCCUPAC contains a set of objects, selected and organized with respect to basic activities within the expectations of a particular occupation. Occupation is defined as the chief means by which a person earns his living.

Each OCCUPAC is intended to be a self-contained, self-directing set of activities, with no implications in terms of "pre-requisites" or "required" topics. However, all the OCCUPACS are inter-related by means of four organizing principles, which may be stated as objectives for the materials:

1. To provide exposure to information and activities regarding specific occupations.
2. To provide opportunity for the development of certain generalizations (concepts) regarding occupations.
3. To encourage the growth of self-awareness with respect to talents, skills, knowledge, interests.
4. To integrate occupation generalizations and the several facets of self-awareness.

Each OCCUPAC includes implications for all of these principles, but, as a rule, Principles 1 and 2 are emphasized in sets intended for use with primary children; Principles 2 and 3 for intermediate children; and Principles 3 and 4 in the junior high. The OCCUPAC Model on page A-3 illustrates the organizing principles for the K-3, 4-6, and 7-9 grade levels.

What is an OCCUPAC?

- An OCCUPAC is a package of multisensory materials that presents occupational information at a level which can comprehended by K-9 students.

- Among the multisensory materials contained in the OCCUPACS are: slides, tapes, the "sounds" of work, equipment and materials used in various occupations, decision-making simulation activities, puppets, and "props" of all kinds from the REAL WORLD OF WORK.

For additional project information, write:
Dr. Marla Peterson, Director
OCCUPAC Project
208 Buzzard Laboratory School
Eastern Illinois University
Charleston, Illinois 61920

OCCUPAC –
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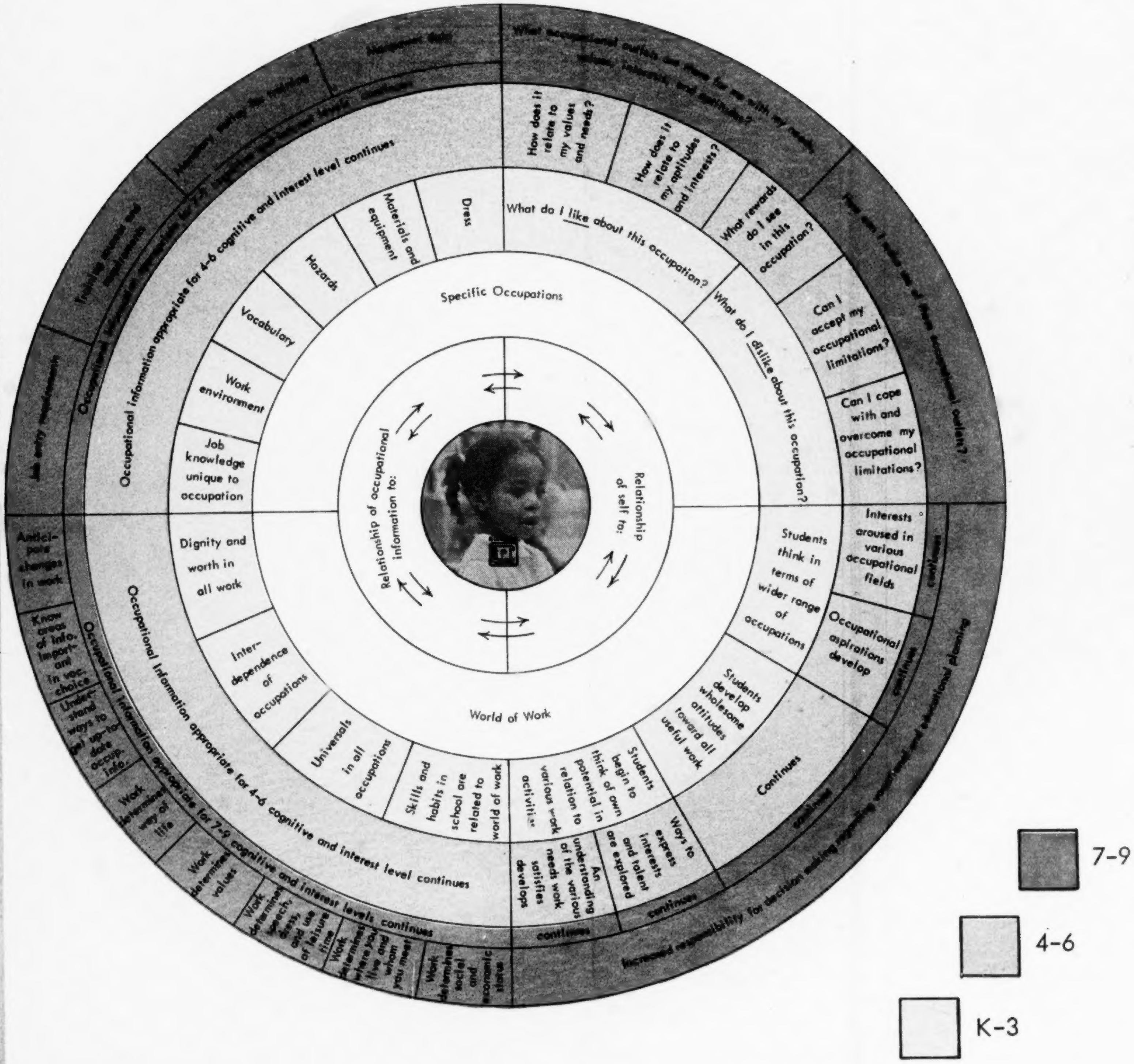
Specific Occupations
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Relationship of self to:
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What do I like about this occupation?
What do I dislike about this occupation?
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Materials and equipment
Hazards
Vocabulary
Work environment
Job knowledge unique to occupation
Dignity and worth in all work
Inter-dependence of occupations
Universals in all occupations
Skills and habits in school are related to world of work
Students begin to think of own potential in relation to various work activities
Students develop wholesome attitudes toward all useful work
Students think in terms of wider range of occupations
How does it relate to my values and needs?
How does it relate to my aptitudes and interests?
What rewards do I see in this occupation?
Can I accept my occupational limitations?
Can I cope with and overcome my occupational limitations?
Interests aroused in various occupational fields
Occupational aspirations develop
Continues
Ways to express interests and talent are explored
An understanding of the various needs work satisfies develops
continues
Occupational information appropriate for 4-6 cognitive and interest level continues
Occupational Information appropriate for 4-6 cognitive and interest level continues
Occupational information appropriate for 7-9 cognitive and interest levels continues
Increased responsibility for decision making regarding vocational and educational planning
Job entry requirements
Antici-pate changes in work
Know areas of info. import-ant in voc. choice
Under-stand ways to get up-to-date occup. info.
Work determines way of life
Work determines values
Work determines speech, dress, and use of leisure time
Work determines where you live and whom you meet
Work determines social and economic status
7-9
4-6
K-3

Supported by funds from the Division
of Vocational and Technical
Education, State of Illinois

in cooperation with
The Center for Educational Studies,
Eastern Illinois University

Photographs taken at
Buzzard Laboratory School,
Eastern Illinois University—OCCUPAC
development and pilot testing site.

OCCUPAC

Dr. Marla Peterson, Director
OCCUPAC Project
208 Buzzard Laboratory School
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The interaction of a student with the objects in an OCCUPAC is guided by taped and/or printed directions. In all cases, the directions are intended to be practically self-sustaining with as little need for live teacher[1] involvement as possible. This is not intended to limit the teacher's involvement in occupational information activities. Conversely, it is hoped that student and teacher interest in the OCCUPACS will generate other related classroom activities. Field trips, interviews, role playing, and all the other techniques which can be used for presenting occupational information should be used.

Children learn by seeing, talking, listening, and doing. Seeing, talking, and listening have generally been included in traditional approaches for presenting K-9 occupational information. However, doing--the very thing to which career information readily lends itself--has been neglected. Doing, then, is one of the major components of the OCCUPACS. The OCCUPACS are based on a multi-media approach. Tapes, slides, "sounds" of work, simulated work activities, and "props" of all kinds from the REAL WORLD OF WORK have been assembled into the OCCUPACS.

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[1] "Teacher," as used in this report, refers to anyone who is guiding an instructional activity. Thus librarians, counselors, media center directors, etc. are included in this comprehensive definition of "teacher."

Philosophy of Use

The OCCUPAC Program, as it is presently being developed, is intended to become a regular part of any school's curriculum. As the actual interaction with the materials assumes individual pupil differences in interests and abilities, so the administrative decisions regarding the placement and purposes of the OCCUPACS depends upon the local context in which the school personnel of a particular locality operate. The OCCUPACS have been specifically designed to allow for flexibility of placement within any school's curriculum. Thus, the OCCUPACS might be used as the central core for an occupational information program, as supplements for certain aspects of school subjects or certain aspects of the school guidance program, as "sideline" exploratory materials, or as bases for expansion into further study or activities. Physical placement of the OCCUPACS can be in a self-contained classroom, a media center, or a library.

It is not expected that all children in a given classroom will work with every OCCUPAC available. Subject to teacher control, those children who choose to work with an OCCUPAC will do so with no requirements for sequence (between OCCUPACS) or for having "done" all of the available OCCUPACS.

Phase I Evaluation Data

The one objective in terms of child behavior at this stage of the Program's development is whether or not the child is able to complete the activities he attempts. The chief concern is whether or not the contents of a particular OCCUPAC can provide children with a ready opportunity for interaction with its materials. As different OCCUPACS are developed and tested, it is expected that adjustments in their contents may be necessary. Consequently, during this period of production, the developers were particularly concerned with the "behavior" of the OCCUPAC rather than any specific or substantial changes in the child. If most children "got through" the activities of an OCCUPAC with a minimum of confusion, then the objectives for the pilot testing and field testing stages will have been met.

However, evaluation of whether the types of behavior specified in the OCCUPAC model were occurring was a consideration in the overall evaluation plan. Teacher observations and student interviews were conducted. It was evident from post-test interviews that the world-of-work vocabulary of children who had used the OCCUPACS had increased.

The most striking improvement in child behavior was noted when children were asked the question, "How would you go about finding out what worker (perhaps an electrician) does?" In pre-test interviews the average number of ways named by kindergarten through third grade students was 1.7. Six weeks later in post-test interviews this average increased to 2.9. Although this was an increase, no conclusions can be drawn from this data. Among other reasons, the increase could have been caused by maturation of the child. A research design, using control groups would provide more meaningful data. However, this type of research was not part of the Phase I contract for the OCCUPAC Project.

One thing can be said with certainty: Students like the OCCUPACS. Essays written about the OCCUPACS by students who had used the OCCUPACS reflected a very positive attitude toward the OCCUPACS. Field testing teachers also reported high student enthusiasm for OCCUPAC activities.

Although the intent of the OCCUPAC program is to produce the kinds of behaviors specified in the OCCUPAC model, the developers of the OCCUPACS realize that a child restructures the universe according to his own perceptions. The OCCUPACS cannot change previous experiences but they can expose children to new experiences.

The ultimate objective of a successful OCCUPAC Program is for the typical ninth grader to be able to relate intelligently his own capacities and interests to whatever occupation(s) which at that time would tend to offer a substantial basis for serious consideration as an eventual means for his earning a living.

II. THE K-3 LEARNER AND THE OCCUPAC APPROACH

Through exposure to the OCCUPACS, the K-3 learner will be presented with the following concepts which are related to his career development:

Occupational Information as It Relates to Specific Occupations

1. Each occupation has certain expectations related to dress which are associated with the occupation.
2. Each occupation has its own materials and equipment.
3. Each occupation has its unpleasant as well as its pleasant tasks and this is determined by the individual worker.
4. Each occupation attracts people with certain interests and needs.
5. Each occupation has its own vocabulary.
6. Each occupation has its own working conditions and environment.
7. Each occupation has job knowledge that is unique to that occupation.

Occupational Information as It Relates to the World of Work

8. There is dignity and worth in all useful work.
9. Occupations are dependent upon each other.
10. A pleasing personality is important in all occupations.
11. Both men and women can work in each occupation.
12. Skills and habits learned in school are related to the world of work.

The Self as it Relates to Specific Occupations

13. An individual may like certain things about an occupation.
14. An individual may dislike certain things about an occupation.

The Self as it Relates to the World of Work

15. An individual should begin to think in terms of a wider range of occupations.

16. An individual should start developing wholesome attitudes toward all useful work.

17. An individual should begin to think of his own potential in relation to various work activities.

III. INSTRUCTIONS TO THE TEACHER FOR USE OF THE K-3 OCCUPACS

Suggestions for introducing the audio-visual equipment

There are two basic pieces of audio-visual equipment which are used with the OCCUPACS: (1) the hand-operated slide viewer in which a stack of slides can be inserted and (2) the cassette tape recorder.

Each teacher will have her own preference for ways to introduce this equipment; however, the following suggestions might be helpful:

General Suggestions

1. Let the children work with the equipment for two or three days before any of the OCCUPACS are introduced.
2. Have a station in the room where the slide viewer and the tape recorder are within easy access of the children. A table surface with enough space for the OCCUPAC material is desirable.
3. Provide paper and pencils at the work station.

Suggestions for Introducing the Slide Viewer

1. Show the children how to open up the "drawers" on each side of the slide viewer.
2. Show the children how to pick up a stack of slides and place them in the viewer.
3. Emphasize that the stack of slides should be placed in the viewer so that Number 1 is on the bottom. The slides will be in correct position if the child is able to read the numbers.
4. Show the children how to remove the stack of slides from the viewer.

5. Show the children how to close up the viewer when they are finished.

6. Tell the children that the first lesson always involves the viewing of slides. The tape will allow them time to put the slides in the viewer. However, it would be a good idea to place the slides in the viewer before starting the tape for Lesson 1.

7. Let the children practice steps 1-6.

Suggestions for introducing the tape recorder

1. Show the children how to insert the cassette in the recorder.

2. Show the children how to operate the "play," "stop," and "rewind" buttons. Color coding the buttons will help the children understand the purpose of the buttons. Put masking tape on each button and with a magic marker color the masking tape on the "play" button green; color the "stop" button red; and color the "rewind" button yellow.

3. Instruct the children that after they have listened to a tape they must rewind the tape so that tape is ready for the next person to use. Show the children how the rewind button should be held down until the tape stops.

4. Show the children how to remove the cassette from the recorder.

5. Let the children practice steps 1-5.

Placement of OCCUPACS in the Curriculum

1. OCCUPACS are self-instructional. Thus, after children have learned how to use the audio-visual equipment and after a work station has been provided, OCCUPACS can be easily and readily assimilated into the existing curriculum.

2. OCCUPACS should be left in the classroom as long as there is student demand for them. Some teachers may wish to have one OCCUPAC available at a time. Other teachers may wish to have several OCCUPACS available so children can choose the OCCUPAC they wish to explore.

3. There is no particular sequence in which the OCCUPACS should be used.

4. Within any one OCCUPAC, the lessons are generally constructed so that one lesson is not dependent upon another.

5. OCCUPACS are self-instructional. However, some of the OCCUPACS may have culminating activities which are group activities.

6. Tape scripts on each OCCUPAC and a brief overview of each OCCUPAC are provided. The overview will tell the teacher if a group activity is inherent in the OCCUPAC.

7. There is a difficulty hierarchy of OCCUPACS based on vocabulary and motor skills. Grade level designations have been avoided. Let the child use the OCCUPAC when he is ready. The following OCCUPACS are arranged in order from the LEAST difficult to MOST difficult.

    a. Landscaper
    b. Licensed Practical Nurse
    c. Electrician
    d. Secretary
    e. Industrial Sewing Machine Operator

8. It is strongly recommended that after children have completed all activities in an OCCUPAC that the first activity (the slide-tape presentation) be repeated by the children.

The Self Expression Learning Follow-up OCCUPAC

The Self Expression Learning Follow-up OCCUPAC is an OCCUPAC designed to elicit free expression on the part of the child. This OCCUPAC is discussed more thoroughly in another section of the manual.

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IV

Contents of the OCCUPACS

APPLIED BIOLOGICAL AND AGRICULTURAL OCCUPATIONS

Landscaper

Overview

There are two activities in the Landscaper OCCUPAC. The first activity is a slide-tape presentation on the work of a landscaper. In the second presentation the students get to try out some activities associated with landscaping. A flannel board and cutouts of trees, bushes, lakes, buildings, hedges, etc. are provided. The child is free to landscape some buildings and grounds in a design he has created.

Taped instructions are provided for Activities 1 and 2. Both activities are intended for use on an individual instruction basis.

Tape and slides used for Activity 1 should be presented again after the child has completed Activity 2.

APPLIED BIOLOGICAL AND AGRICULTURAL OCCUPATIONS

Landscaper

Activity 1

Materials and Equipment Needed

1. Tape recorder and earphones
2. Cassette tape #1 from Landscaper OCCUPAC
3. Slide viewer
4. Set of 8 slides from the Landscaper OCCUPAC

Vocabulary

1. bushes
2. flower
3. landscaper
4. rake
5. shovel
6. tool room
7. tractor
8. tree

Tape Script

Hello!

I am busy today with my work. Would you like to come and visit me as I work? Most days I work outside, but some days I work inside. I work with shovels, rakes, tractors, flowers, trees, and bushes. Can you guess what my work is? I am a landscaper. The word landscaper might be a new word to you, so we had better say the word together. Please say the word landscaper after me--LANDSCAPER. (Pause)

Let's look and see what my job is as a landscaper. I have slides for you to look at, and sounds for you to hear. Do you have the viewer and slides? If you do not, please get the viewer and slides. Stop the recorder if you need time to put the slides in the viewer. Start the recorder when you are ready to listen again.

(Look at Slide 1) This is a picture of the building where I work when I work inside. My office and my tools are in this big, nice, new building. Would you like to come inside?

(Look at Slide 2) Here I am in the tool room. The tool room is the room where all of my tools are kept. What tools do you see? These tools are shovels. I use a shovel in my work. I use many other tools also.

(Look at Slide 3) A landscaper decides where bushes should be put. I decide where bushes should be put, and how they should be put. Inside my office, I talk and think about where bushes should be put. My work is very important because the way I decide to put bushes and flowers can make buildings look much nicer. People who build buildings and own buildings depend on me to help them make their buildings look prettier.

(Look at Slide 4) The people that you see in this slide are the people that I work with. These people help take care of the trees, bushes, and flowers after I have decided where the trees, bushes, and flowers should be planted. They are sitting on their tractors ready to do work outside. (SOUND) What do you think the noise is? The noise you heard is the sound of the tractors. Would you like to work with a tractor and hear the tractor noise?

(Look at Slide 5) Do you know what this man is doing with the tractor? (SOUND) He is cutting grass with the tractor. The tractor is much faster and easier to use than a lawn mower. Do you know why? The tractor moves faster than a lawn mower. A lawn mower moves only as fast as it is pushed. When he cuts grass with a tractor, he can sit down; he doesn't have to walk.

Is there grass to cut at your house? Some of you may not have grass at your house. Is there a park near you? Do the people who cut the grass in the park use a tractor or do they use a lawn mower? Now, you know one of the jobs that I do is to plan where trees, bushes, and flowers should be placed. Other workers, like the man you saw on the tractor, help take care of the flowers, trees, and bushes.

(Look at Slide 6) I decided that bushes would look nice in front of the building that you see in this slide. I thought many small bushes put close together would look best. I work with other men and women when I put in the bushes. I need a shovel to dig with, so I may put the bushes into the ground. A big piece of plastic is put over the bushes. A hole is cut in the plastic, so that the bushes may come up through the hole.

A piece of plastic doesn't look very pretty, so I lay stones on top of the plastic in between the bushes.

(SOUND) The plastic keeps weeds from growing in between the bushes. Do you have trouble with weeds growing in between bushes at your house? Have you ever seen weeds in a park?

Do you see what kind of clothes I wear when I work outside? (Pause) I wear work clothes, because I would not want to get my good clothes dirty. Sometimes I get dirty when I work. Do you like to have dirt on your hands?

(Look at Slide 7) When I work inside, I think where flowers should be put. Which flowers would look pretty near a house or near a building? I also have to think what colors of flowers look pretty together and how many flowers look good together. I decided to put many, many flowers next to this building. The building is big; so one flower by itself would not look as pretty as many flowers together. I thought red flowers looked pretty. That is why I put red flowers together. What color of flowers would you choose to put next to a building? (Pause)

(Look at Slide 8) I work inside in my office to decide how I should put trees, bushes, flowers, and stones near this building. Inside I work with small toy trees, toy flowers, and toy bushes. I put them together one way, then I put them together another way until I liked one way that the trees, flowers, roads, and bushes were put together.

Do you like the way I have put the trees, flowers, and bushes together? The people I work with helped me put the trees, bushes, and flowers outside, next to the building.

Sometimes in my office, I will draw a picture of how I would want the trees, flowers, and bushes to look before I put them outside.

It is time for me to go to my office and draw some pictures of what flowers, trees, and bushes would look nice in front of a church. When I was in school I learned how to draw, and I learned what colors look nice together. The things I learned in school will be a big help when I go in to draw.

Before I go, let us think about the landscaper's work. What does he do? (Pause) He works with tools, flowers, trees, and bushes. He draws pictures and works with small toy trees, flowers, and bushes to decide how and where they should be put. Do you remember what kind of clothes I wear? (Pause) I wear work clothes, because I work with dirt.

Did you like the tractor sound? Would you like to drive a tractor? Would you like to cut grass with a tractor? (Pause) Do you like trees, flowers, and bushes? Would you like to work with them? Would you like to draw pictures of flowers, trees, and bushes? Do you like to be outside? Do you like to get dirt on your hands? Would you like to be a landscaper?

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On Tape #2 you will have a chance to be a landscaper. You may now rewind the tape, turn off the tape recorder, and put the tape and the slides back in their proper places.

APPLIED BIOLOGICAL AND AGRICULTURAL OCCUPATIONS

Landscaper

Activity 2

Materials and Equipment Needed

1. Tape recorder and earphones
2. Cassette #2 from Landscaper OCCUPAC
3. Felt trees, bushes, flowers, roads, etc.
4. Flannel board

Tape Script

Hello!

I told you on the last tape that you would be able to be a landscaper. I haven't forgotten this. Today, YOU WILL HAVE A CHANCE TO BE A LANDSCAPER!

Do you remember the work that a landscaper does? A landscaper works with flowers, trees, and bushes. A landscaper works inside when he decides where to put flowers, trees, and bushes. How does the landscaper decide where to put trees, flowers, and bushes? (Pause) The landscaper draws pictures of flowers, trees, and bushes. The pictures are the way he wants to put flowers, trees, and bushes. Sometimes the landscaper works with small toy trees, flowers, and bushes. He moves the toy trees, flowers, and bushes until he thinks they look nice.

I have made a flannel board for you to use while you are the landscaper. I cut out flowers, trees, hedges, buildings, and bushes for you to put any way you like. You can move the cut out pieces on the flannel board any way you like. The flannel board and cutouts are in the box of materials.

While you are the landscaper, you will put the cut out flowers, bushes, trees, hedges, lake, and buildings together on the flannel board. You may put the cutouts wherever you like. Remember, you may move the cutouts around on the flannel board. When you use the cutouts, be careful and try not to drop them. If you drop any cutouts, please pick them up. The flannel board and the green box with the cutouts in it are in the box of materials.

You may now work with the flannel board as a landscaper. You might like to use your crayons and some paper and draw a picture of what you would like to do on the flannel board. It is up to you to decide whether you would like to work on the flannel board or whether you would like to draw a picture first. After you have worked with the flannel board, you might want to listen to tape #1 and look at the slides again. Please rewind the tape, turn off the tape recorder, and place the tape back in its proper place.

BUSINESS, MARKETING, AND MANAGEMENT OCCUPATIONS

The Secretary

Overview

There are four activities in the Secretary OCCUPAC. The first activity is a slide-tape presentation on the work of a secretary. In the second activity the students get to look at and use some of the materials that might be found in a secretary's desk drawer. The third activity involves the students in preparing a duplicator master. The fourth activity is a filing activity. Taped instructions are provided for all activities and the activities are intended for use on an individual instruction basis.

THE CULMINATING ACTIVITY FOR THE THIRD ACTIVITY IS A GROUP ACTIVITY. After the students have prepared the duplicator masters, the tape suggests that the teacher take the class to the school office so that the class can see the school secretary duplicate the masters they have prepared.

There are some expendable materials in the OCCUPAC which can be replaced by the teacher with a minimum amount of effort. The duplicator masters will have to be replaced after a class has used the secretary OCCUPAC. However, replacement of the duplicator masters should not present a problem to most teachers as it is a supply item which is readily available in most schools.

Tape and slides used for Activity 1 should be presented again after the child has completed Activities 2, 3, and 4.

BUSINESS, MARKETING, AND MANAGEMENT OCCUPATIONS

The Secretary

Activity 1

Materials and Equipment Needed

1. Tape recorder
2. Cassette tape #1 from Secretary OCCUPAC
3. Slide viewer
4. Set of 11 slides from the Secretary OCCUPAC

Vocabulary

1. boss
2. desk
3. duplicator
4. file
5. greets
6. letter
7. type
8. office
9. recorder
10. secretary
11. shorthand
12. typewriter
13. welcomes

Tape Script

Hello!

Please come in and let me show you around the office. If you will pick up the package of slides and insert them into the viewer, we will be ready to begin our trip around the office. (Pause)

You probably have been in several different offices. If you have ever visited your dentist or your doctor, you have been in an office.

(Look at Slide 1) There are many people who work in an office. I have the job of secretary. Let me say that word again--secretary.

I must always have my hair neatly combed and I must wear a clean, neat dress, and I must SMILE. Many visitors come to the office and I must help welcome the visitors. We want everyone who comes to the office to feel welcome. That is why it is important that I look nice and that I am friendly.

Already, you have found out one thing a secretary does. Can you think of what it is? (Pause) If you said that a "secretary welcomes guests," then you were right.

Sometimes visitors call on the telephone to find out what day they can come visit.

When the visitors call on the telephone, the secretary must answer the telephone and tell them what day might be a good day for them to come to visit. (Look at Slide 2) Oh, the telephone is ringing right now. (ringing telephone) Excuse me a moment. "Evanston Company, Miss Johnson speaking. Yes, tomorrow at 1:00 will be fine. Good bye."

Our boss often receives letters inviting her to visit another office. Then she must write a letter and tell whether or not she can go.

(Look at Slide 3) When our boss sends a letter to another office, she calls a secretary into her office and tells the secretary what she wants to say in the letter and the secretary writes it down. In this picture you see a secretary writing what her boss would like to say in a letter. The secretary has a special way of writing fast which is called shorthand. In the next lesson, I will show you what it looks like when I use shorthand to write fast. The boss in this picture is a woman. Bossess can be men or they can be women, just as secretaries can be men or they can be women.

(Look at Slide 4) I work in a very modern office with many machines. One of the machines in my office is a machine like the one you are using right now to listen to me speak. The machine you are using is called a tape recorder. My boss has a recorder. She can speak into the recorder and tell me what she wishes to say in her letters. I can listen to the recorder, just like you are listening right now. Then I can get her letters ready to send to the post office. I am sure you know what a post office is.

(Look at Slide 5) However, before I can send the letter to the post office, I must use another machine called a typewriter to make the letter. Here you see me listening to the recorder and typing. Excuse me a moment while I type the letter. (Sound of typing)

Can you now think of two machines that a secretary might use? (Pause) Yes, sometimes I will use a recorder and sometimes I will use a typewriter. But, my office is so modern that I have lots of other machines to use.

(Look at Slide 6) One machine that a secretary uses very often is called a duplicator. Here is a picture of a secretary using a duplicator. This is a fun word so let's say it together--duplicator. There is a special way to use this machine and perhaps after we have found out how to use it, your teacher will arrange for you to see a duplicator in your school.

(Look at Slide 7) I have a special piece of paper called a "master". I can type a letter on this master. Then I place the master on a duplicator and the duplicator makes many copies of the letter. Remember--first I type on the master, then I place the master on the machine called a duplicator. Now that I am ready to use the machine, let's make some letters. (Sound of duplicator) Perhaps, in the next lesson, you can do some things to help your teacher get ready to show you how a duplicator works. Maybe you can help make a master.

Think of all the new words you have just learned. Could you tell someone what a recorder is used for? Do you know what a duplicator is used for? Do you remember what the special piece of paper is called that is placed on a duplicator?

Besides knowing what all these new words mean, you should also be able to name at least three things that a secretary does while she is at work.

(Look at Slide 8) Now let's just take a quick look around the office to see what we may have missed. Oh yes, we have not talked about how pretty and how colorful this office is. People who work in offices often have very attractive places to work. As you look at these slides, are you noticing the people I work with? They are also dressed neatly and attractively. Some of the work a secretary does cannot be done unless she has the help of these workers.

(Look at Slide 9) This is where we store our letters. It is called a file. Here you see me putting some letters in the file.

(Look at Slide 10) Each day I place mail in the mailboxes. We have a mailbox for each person who works here.

(Look at Slide 11) Before you go I am going to let you have a quick look in my desk drawer. In the next lesson you will get to work with some of the things I keep in my desk drawers.

The next time you are in an office you will probably find other things which we have forgotten to look for. There are so many different kinds of work that go on in an office. How could my boss send her letters without a secretary? How could your mother and father receive their telephone bill if the secretary did not send out the bill? How could your teacher give you a worksheet or a test if she did not have secretaries to give her paper and to help type the test? The work of a secretary is important to all of us.

In the next lesson, we are going to peek into a secretary's desk and see what we can find. Make sure you have placed the slides back in their proper place. Rewind the tape, turn off the recorder, and place the tape back in its proper place.

Good bye.

BUSINESS, MARKETING, AND MANAGEMENT OCCUPATIONS

The Secretary

Activity 2

Materials and Equipment Needed

1. Tape recorder
2. Cassette tape #2 from Secretary OCCUPAC
3. Paper samples
4. Envelope samples
5. Carbon pack (1 original and 1 carbon with carbon in between)
6. Typewriter Eraser (Pencil type)
7. Correction fluid
8. Stamp and stamp pad
9. Shorthand notebook

Vocabulary

1. carbon paper
2. correction fluid
3. drawer
4. envelope
5. eraser
6. neat
7. onionskin
8. shorthand notebook
9. stamp
10. stamp pad
11. window envelope

Tape Script

Hello! This is a secretary speaking.

At the end of the last lesson, I promised that today you would have an opportunity to peek into the secretary's desk drawers, so let's open my desk drawers and have a look.

Take a good look at the materials in the package because you will be asked to place all of the materials back in the correct place after you have finished using them. Make sure you have a piece of paper and a pencil with you. I will wait until you have your paper and pencil. (Pause)

Now that you have taken a good look at the materials used by the secretary, have you noticed how neat they are? A secretary tries to be very neat about her work. Perhaps your teacher has asked you to keep your desk in neat order or maybe your teacher has asked you to help her keep the room neat. This kind of work will help you learn how to be neat if someday you should be a secretary. There are other occupations besides that of a secretary in which you must be neat.

As you examine each different thing in the secretary's desk drawer, turn off the recorder. That way you can use as much time as you need. After I have explained each item, I will tell you to turn off the recorder.

You will notice that there is a folder that has a "1" on it. Pick up this folder of paper. You are to feel the paper and look at it. If you feel very, very carefully, you will discover that some paper feels thicker than other paper. I will wait until you take time to take a closer look at the paper. Turn off the recorder. A secretary uses all the different kinds of paper that you have in your hand.

Did you think a secretary worked with so many different kinds and so many different colors of paper? Why do you think a secretary needs different kinds of paper? It is because she performs many different kinds of tasks that require different kinds of paper. Letters are written on the best paper, reports are on different paper, and thin paper is used for copies of letters. A secretary needs to know when to use each kind of paper. A secretary must also keep enough paper ordered so that she will have the kinds of paper she needs.

Now put the paper back in its proper place and pick up the packet of envelopes that are marked with a "2". (Pause) Look inside the big brown envelope and see what you can find. Stop the recorder. Have you ever seen so many different sizes and shapes of envelopes?

Do you see the envelope that looks like it has a window in it? What do you think this envelope is called? It's called a window envelope and it has a piece of paper in it. Can you think of how the window envelope might save the secretary some time? Maybe if you take the piece of paper out of the envelope, you will see why. (Pause) The secretary does not have to type a name on the envelope. She puts the piece of paper in the envelope so the name of the person to whom she is sending the letter peeks through the window in the envelope. Put the piece of paper back in the envelope and see if you can make the name peek through the window. (Pause)

Even the brown envelope with the "2" on it which holds the other envelopes is useful for a secretary. I used it this time to hold other envelopes to show you. Other times I would use it to mail letters too thick to fold or papers which must not be folded.

Now that you have examined the envelopes, put them back in the big brown envelope, and place them back in the proper place. (Pause)

Now, look for a folder that has a "3" on it. In this folder are two pieces of white paper with a piece of black paper between the two white pieces. Look at these materials. Turn off the recorder. This is a letter a secretary has typed. Whenever she types a letter, she makes a copy of it. Look at the letter which is under the black sheet. If you look closely, it looks just like the one that is on the top white sheet, but it is on very thin paper. This thin paper is called onionskin paper. Isn't that a funny name for paper? You know what an onion looks like? This paper is called onionskin because it is thin just like the skin of an onion. The two white sheets should look alike. Why do you think she needs two letters? Think about this and see if you can think of a reason. This was a hard question so maybe I should tell you. One letter is sent to the person to whom the letter was written. The other letter is kept in the office so that there is a way of knowing what was said in the letter.

That piece of black paper is called carbon paper. This is another new office word so let's say it together. Carbon paper. Now place the folder with the carbon paper and the letters back in the correct place and look for the materials that have a "4" on them. (Pause) There should be three things that have a "4" on them. You should have found another folder with a letter in it, (Pause) something that looks like a pencil with a brush on the end of it, (Pause) and a small bottle of white paint. We now have three things to look at so let's learn the names of these things. We already know that the sheet of paper is a letter. But what about the thing we called a pencil? Try to write with it. (Pause) It didn't write very well, did it? No, in fact, instead of writing with this tool, we erase with it. This is a special eraser used to erase material that is typed. Sometimes you have to sharpen the eraser in a pencil sharpener. You may have to do this if the eraser is worn down. Find a word in the letter and try to erase the word. Do not press too hard or you will make a hole in the paper. Turn off the recorder.

You still have not learned what the little bottle of paint is for. This little bottle of paint is called correction fluid--that was a long name so let's say it together twice (CORRECTION FLUID, CORRECTION FLUID). We can paint away mistakes with this fluid. It is sort of a magic fluid, isn't it? We will try to paint away a mistake. Take a sheet of paper and print your name on the paper--but make a mistake. Print your name wrong. Turn off the recorder while you do this. Shake the bottle very hard. Now take the lid off the bottle. (Pause) You will find a little brush underneath the lid. Use this brush and paint over the mistake in your name. Use a tiny, tiny amount of paint. After you have painted, let the paint dry. (Pause) It will dry quickly. When it is dry take your pencil and write your name again in the same spot where you painted. (Pause) This is an easy way to correct a mistake. The secretary can do the same thing when she makes a mistake. We all make mistakes and it is important to correct our mistakes.

Make sure you have placed the lid on the correction fluid and place the letter, the typewriter eraser, and the correction fluid back in the correct spot. (Pause)

Already we have learned about different kinds of paper--one special kind was onionskin paper--, different kinds of envelopes, carbon paper, typewriter erasers, and correction fluid. As I call out names can you point to these objects? I will go slowly while you try to find them. Point to the correction fluid, (Pause) carbon paper, (Pause) onionskin paper, (Pause) typewriter eraser (Pause).

Now we are ready to look at some other materials in the desk. Look for two things that have a number "5" on them. (Pause) There should be a little flat box and a metal tool with a wooden handle on it. Let's find better names for these two things.

The little, flat box is an ink pad. Open up the box but do not touch the inside of the box because there is ink on the pad. It is difficult to wash ink off your hands or off your clothes so please be careful. (Pause) If you look at the metal tool with the wooden handle, you will see that there are little rubber letters and numbers on one end of the tool. (Pause) This tool is called a stamp. This is a different kind of stamp than you put on a letter. Let's see how this stamp works. Place the end of the stamp which has the rubber letters and numbers on the ink pad. (Pause) Lift it off the ink pad and place the stamp on a piece of paper. You should be able to make words and numbers on the paper with this stamp. Stop the recorder while you do this. The secretary uses this stamp to stamp dates on letters that come to her office. She has other stamps to use for other reasons. Some of you may have a stamp and a stamp pad at home. Place the stamp pad and the stamp back in the correct place. Make sure the cover is closed on the stamp pad. (Pause)

Now look for something which has a number "6" on it. You should find a notebook. (Pause) This is a shorthand notebook. Can you remember what shorthand is? Yesterday when I took you on a visit to my office, I showed you a secretary writing down a letter as the boss told her what to say in the letter. Remember, how I told you that the secretary has a special way of writing fast so that she can write down what her boss says? This way of writing fast is called shorthand.

If you open up the notebook, you will see some squiggily lines. This is shorthand. Underneath each squiggily line is the word or words which the secretary has written in shorthand. Shorthand looks like a secret code, doesn't it? In fact, you might think of it that way. Secretaries have a secret code that they can use to write fast and they know what the code means.

On the top line in the notebook a secretary has written the sentence, "I am going to the farm." Did you notice how she only wrote on part of the page? She does this so she can write faster. When she writes on one half of the page, she does not have to move her hand back and forth across the page. She just moves her hand down the page. Look at the other sentences on the page. Each shorthand sentence has a regularly written sentence under it that tells what the shorthand says.

Perhaps you would like to try to write a word in shorthand. If you would like to try, wait until you have finished this lesson and then tear out a page from the back of the notebook and try to write some shorthand.

How did you enjoy working with some of the materials a secretary uses? Did you like to put the piece of paper in the window envelope? Did you like to correct your name with the correction fluid? Do you think it would be fun to answer the telephone and greet visitors? Do you think you are a neat person and that you enjoy keeping things neat? Do you like to help others? These are some of the things a secretary does. Would you enjoy being a secretary?

Today we have looked at many things a secretary would have in her desk drawer. You may want to spend some time looking again at the things. You might try to name each thing or you might like to use some of the things again. You might want to try writing some shorthand.

We have learned many new words today--stamp pad, stamp, shorthand notebook, onionskin paper, carbon paper, typewriter eraser, correction fluid, and envelope. How many of these can you remember? Oh, I almost forgot that I promised you we would make a master. In the next lesson we will work on the master. Rewind the tape, turn the recorder off, and place the tape back in its proper place.

Good bye.

BUSINESS, MARKETING, AND MANAGEMENT OCCUPATIONS

The Secretary

Activity 3

Materials and Equipment Needed

1. Tape recorder
2. Cassette tape #3 from Secretary OCCUPAC
3. Ballpoint pen
4. Master

Vocabulary

1. Ballpoint pen

Tape Script

Hello! This is the secretary who has talked to you before.

You will find out today that I do keep my promises. Today you are going to help work on a master. Did you remember that a master is a special piece of paper that we can write on and then we can make many copies of the master by putting it on a machine called a duplicator?

You will need two things from the package before you begin. Find the ballpoint pen which has a 7 on it. Find the sheet of paper that has a purple sheet on the back ot it. This is a master. (Pause)

Listen very carefully and then I will let you work after I have asked you to turn off the recorder. Look at the master. You will see that I have drawn little boxes on the master. You get to work in one of these boxes. Which box would you like to choose? Remember, you get only one box. In an office it is very important that you use your own materials. Remember only one of these boxes is yours. You may draw anything you like in the box. When you start drawing, you will use the ballpoint pen.

There should be a heavy purple sheet on the back of the master. It is a little bit like carbon paper, but this purple paper is used differently. Do not touch this purple sheet or your hands will get very messy. Do not take the heavy purple sheet away from the white sheet. It is important that the purple sheet is under the white sheet when you begin to draw. After everyone has drawn on the masters, your teacher will plan a special trip for your class to go to the school office and make many copies of the master on the duplicator. Then, everyone in your room will have a copy of the picture you have drawn. You might like to put your name under the picture you have drawn. Just print your name right on the master--but make sure you print your name in the box you have chosen.

After you have finished drawing your picture and printing your name in your box, put the master and the pen back in the package. In the next lesson, I have some more work you can help me with. You are going to help me file.

You may now rewind the tape, turn off the tape recorder, and put the tape back in its proper place.

Good bye.

BUSINESS, MARKETING, AND MANAGEMENT OCCUPATIONS

The Secretary

Activity 4

Materials and Equipment Needed

1. Tape recorder
2. Cassette tape #4 from Secretary OCCUPAC
3. File box (Contents: A-Z Index Cards and Letters)

Vocabulary

1. Folder
2. Index card

Tape Script

Hello! I am the secretary who has been telling you about my work.

I am going to ask you to help me. For the past two days I have been so busy that I could not get my filing done. Do you remember what a file is? It is a place to store papers like letters and reports. At the end of each day I try to save some time when I can put all the letters and reports in the file so that we have a safe place to keep them. If they are put away correctly, we can always find them quickly. I have been so busy the last two days that I could not get my filing finished. Would you help me?

Look in the package of materials and find the gray, metal box which has a #8 on it. This is a file box. (Pause) Open up the file. You will see that in the front of the file there is a folder. The folder has letters in it that need to be filed. Open the folder and look at the letters. (Pause) You will notice that I have taken my red pencil and printed a letter of the alphabet at the top of the letter. Can you find the red letter?

Look in the file box and you should see all the letters of the alphabet on little cards. See if you can find the "M". (Pause) Now look for the "S". (Pause) These alphabet cards are called index cards. Do not take these index cards out of the file because they will help you find the right place in the file for each of the letters. Your mother may have a box like this for saving her favorite recipes.

I will tell you how to file a letter. Take one letter from the folder of letters. Find the red letter at the top of the letter. Now look through the index cards to find the card which has the same letter as the red letter. (Pause) Have you found it? Now place the letter behind the index card which matches the red letter on your letter. You have now filed a letter. You are to file all the letters. Turn off the tape recorder while you do it. Then I will tell you what to do next.

Have you finished filing all the letters? Some people work faster than other people. I hope you filed the letters in the correct place. That is important.

Put the file box to one side now. Later I will tell you what to do about it before you put it away.

Some of my work as a secretary is very interesting. I like to be a secretary because I can do different kinds of work. One of the things I must do, of course, is be careful and do my work with very few mistakes. Other people depend on what I do.

You did some of the kinds of work I do in the office. Please look at the slides and listen to Tape #1 again to find out about other things I do. Watch the pictures to see if you find materials like those you have used.

Find the file box. After you rewind the tape and turn off the tape recorder, you will use the file box again. Take out all the letters you filed behind the lettered file cards and put them in the folder in the front of the box. Then other children who listen to this tape will be able to use the file too. Now, please rewind the tape, turn off the tape recorder, and place the tapes back in their correct places.

Good bye.

HEALTH OCCUPATIONS

The Licensed Practical Nurse

Overview

There are two activities in the Licensed Practical Nurse OCCUPAC. The first activity is a slide-tape presentation on the work of a licensed practical nurse. The second activity revolves around a hospital tray which holds some of the materials used by the licensed practical nurse in her daily work. Each tray item is numbered and its place on the tray has a corresponding number. Safety precautions should be exercised with the glass thermometer. It has been placed in a plastic holder for storage in the tray.

Taped instructions are provided for Activities 1 and 2. Both of these activities are intended for use on an individual instruction basis.

Tape and slides used for Activity 1 should be presented again after the child has completed Activity 2.

HEALTH OCCUPATIONS

The Licensed Practical Nurse

Activity 1

Materials and Equipment Needed

1. Tape recorder and earphones
2. Cassette tape #1 from the Licensed Practical Nurse OCCUPAC
3. Slide viewer
4. Set of 10 slides from Licensed Practical Nurse OCCUPAC

Vocabulary

1. chart
2. instruments
3. licensed practical nurse
4. nursery
5. patient
6. scales
7. autoclave
8. thermometer
9. wheelchair

Tape Script

Hello! I am a special kind of nurse. I am a licensed practical nurse. Today you are going to visit me where I work. Before you can begin your visit, you will need to insert the slides into the slide viewer. Pick up the slides and put them in the viewer. (Pause)

(Look at Slide 1) This is the building where I work. What kind of work do you think goes on inside this building? Can you guess what the name of this building is? (Pause) It is a hospital. Many people work in this building. There are doctors, nurses, and many other people who work here. Here are some of the people I work with. (Look at Slide 2) The man with the white mask on his face is a doctor. The woman standing in front of the doctor is a registered nurse. The registered nurse is helping the doctor. The woman working with the baby is a licensed practical nurse. I am standing beside the woman who is wearing a yellow dress. I am also a licensed practical nurse. The woman who is wearing the yellow dress is a nurse's aide. All of the people you see here help take care of sick people.

I told you that I am a licensed practical nurse. Have you ever heard of a licensed practical nurse? Sometimes people call me a practical nurse and some people call me an LPN. The letters LPN are the first letters of the words Licensed Practical Nurse. LPN takes less time to say than Licensed Practical Nurse.

You know about license plates on a car or a bicycle. A license is a permit to do something. I must learn many things before I can get a license to be a practical nurse. Training and special education are necessary. Another kind of nurse is a registered nurse. A registered nurse must go to school longer than an LPN. A registered nurse can do all the things that I can do, but since she has gone to school longer, she can do more things to assist the patient and the doctor.

(Look at Slide 3) Let us look at some of the things that an LPN does. Remember an LPN is also called a practical nurse. One of the things that an LPN does is measure children to see how tall they are. You probably have had an LPN measure you.

(Look at Slide 4) An LPN weighs children on a scales. Have you ever been weighed when you went to the doctor's office or a hospital? Maybe an LPN weighed you because LPN's sometimes work in doctors' offices and sometimes in hospitals. After an LPN weighs you, she writes down how much you weigh. An LPN must be very careful to read the scales correctly and write down the correct weight.

(Look at Slide 5) Do you know what is happening here? The LPN is taking this girl's temperature. The LPN has put a thermometer in the girl's mouth. Have you ever seen a thermometer? Do you know what is printed on a thermometer? A thermometer has numbers on it. The LPN has to know how to read these numbers and she has to know what these numbers mean. Are you learning numbers in your school work? If you decide to become an LPN you will need to know how to read numbers and you will have to know what the numbers mean.

(Look at Slide 6) A hospital or doctor's office has to be very clean. All the materials I work with, all the pans, all the tools that the doctor works with, have to be clean. Here, I am getting ready to clean some pans and some of the doctor's tools. His tools are called instruments. Has a doctor ever looked in your ear with an instrument?

Has he ever looked down your throat with an instrument? All these instruments must be clean. It is part of my job to see that these instruments are kept clean. This big machine you see is a machine which helps clean the instruments. This machine is called an autoclave. Let's say that word again--autoclave.

(Look at Slide 7) When the instruments are put in the autoclave, the autoclave sterilizes the instruments and kills the germs so that germs are no longer on the instruments. Here you see me taking the instruments out of the autoclave.

(Look at Slide 8) A licensed practical nurse can be a man or a woman. This man is a licensed practical nurse. Remember LPN is a short way of saying Licensed Practical Nurse. He is moving a sick patient in a wheel chair. This patient cannot walk so he is helping her. Do you like to help others? Would you like to help sick people? A licensed practical nurse has to enjoy helping sick people. This man feels very good because he is helping someone.

(Look at Slide 9) I also help the patient feel comfortable by smoothing the sheets on her bed. Sometime the patient will ask me to put a pillow under her head and sometime she will ask me to raise or lower the bed so that she is more comfortable. Hospital beds are made so that it is easy to raise or lower the bed.

(Look at Slide 10) Some licensed practical nurses also help take care of babies. What do you think a nurse has to know about taking care of babies? She has to know how to hold a baby. She has to know how to feed a baby. She has to know how to put the diaper on the baby. There are many things that a practical nurse must know about babies.

You probably know by now that a practical nurse does many different things. You have not seen all of the things I do. I help people walk down the hall in the hospital. Sometimes people cannot walk by themselves so they need my help. I pour and pass medicines for my patients. I write down things about the patient. When I take a patient's temperature, I write down the temperature on a sheet of paper. This sheet of paper is called a chart. Every patient in the hospital has a chart. I write many things on this chart. The doctor reads this chart when he comes to see the patient.

A licensed practical nurse helps the doctor. Oftentimes the doctor will ask her to do things for him. The doctor may ask the practical nurse to hand him an instrument. Do you remember what an instrument is? Sometimes the nurse will ask the practical nurse to do things also. Remember--there is a difference between a registered nurse and an LPN. A registered nurse can do more things than an LPN, but a nurse has to go to school longer.

There is something else that I would like to tell you about my work. Sick people need care during the day, during the night, and on Saturdays and Sundays. Sometimes I have to work at night and on Saturday and Sunday. Would you like to work at night and on weekends?

Sometimes people are unable to sit up in bed by themselves or they are unable to get out of bed by themselves. It is part of my work to help lift these people out of bed or lift them so that they can sit up in bed. Lifting is sometimes hard on my back. Do you think you would like to help lift people?

Yes, sometimes I do have to work at night, sometimes I have to lift people, and sometimes I may even see people who have broken arms or legs. But I enjoy my work very much because I know that I am helping sick people. Today you have seen some of the things that I do. Would you like to help take care of babies? Would you like to measure people, weigh people, and put thermometers in people's mouths? Would you like to smooth out sheets on beds so that patients can feel comfortable? Would you like to pour medicine and take medicine to patients? I enjoy doing all of these things and that is why I am glad that I am a licensed practical nurse.

When you listen to Tape #2 you will learn about some of the tools and materials that I work with. You will learn even more about what I do. Now, rewind the tape, place the tape and the slides back in their proper places, and turn off the tape recorder.

HEALTH OCCUPATIONS

The Licensed Practical Nurse

Activity 2

Materials and Equipment Needed

1. Tape recorder and earphones
2. Cassette Tape #2 from Licensed Practical Nurse OCCUPAC
3. Tray with tools from Licensed Practical Nurse OCCUPAC

Vocabulary

1. alcohol pad
2. cotton ball
3. disposable
4. elastic bandage
5. emesis pan
6. face mask
7. fever
8. gauze
9. hypo-syringe
10. infected
11. Klenzette
12. LPN
13. medicine cup
14. needle tube
15. rubber glove
16. soap dish
17. thermometer
18. tongue blade/depressor

Tape Script

Hello! I am a Licensed Practical Nurse.

Today I am going to show you some of the tools I use in my work. You will have a chance to examine some of the tools, too. Before I begin showing you the tools, you will need to get the tray and instruments that are in the Licensed Practical Nurse OCCUPAC. Please get the tray and the tools that are on the tray. (Pause) If you are a girl you will also need to get the licensed practical nurse hat, and the LPN pin. If you are a boy, you will need to get the LPN pin. Stop the recorder until you have finished and then start the recorder.

Every day I wear a clean, neat white dress, clean white shoes, a white nurses hat and my LPN pin. What do you think LPN means? (Pause) LPN means "licensed practical nurse" which is what I am. A man who is a licensed practical nurse wears a clean, neat white jacket and pants, shoes, and socks, and his LPN pin. Sometimes he has an LPN badge on his shirt sleeve.

I'm sure you want to see the tools I work with, so please put on your LPN pin. If you are a girl, put on your LPN hat. Stop the recorder until you have finished and then start the recorder.

All of the tools are numbered. When I talk about a tool, I will say the number that I have put on the tool. When I have finished talking about a tool, please put the tool back in its right place on the tray. This will make it easier for your classmates to find the tools when they are using the OCCUPAC.

Take a quick look to make sure the tools are in the right place on the tray. I keep my tools on a tray so that I will always know where my tools are.

Look at tool #1. Do you know what it is? (Pause) It is a face mask. I wear a face mask across my mouth and nose when I help a doctor in an operation or when I work where there are babies. Many germs come from the mouth and nose. The strings tie at the back of my head to keep the mask in place. The face mask covers the mouth and nose so germs will not be spread. Feel the face mask. (Pause) Does it feel like paper? It feels like paper because the face mask is made from paper material. After it is used once, it is thrown away.

It is important that all of the tools are kept clean in the hospital so germs are not spread. Some of the tools you will look at today are disposable. "Disposable" means that after the tool has been used once, it is thrown away. Disposable is a long word--please say it after me. DISPOSABLE. Please put the face mask back in its right place on the tray. (Pause)

Please look for tool #2. There are two #2's. Look carefully. Tool #2 is called a tongue blade. Sometimes this tool is also called a tongue depressor. The tongue blade is made of wood, and it is disposable. Some tongue blades are also made of plastic. The tongue blade comes in the green and white paper package. One blade from the tray has been taken out of the package. The other blade has not been removed. You can see how each blade stays clean. Maybe when you have had a sore throat, a doctor has wanted to look at your throat. In order to see in your throat easily, the doctor places the tongue blade on the tongue. The tongue is held down by the tongue blade and the tongue is not in his way when he looks down your throat. The doctor can see if your throat is red, and if your tonsils look as though they need to be treated. Do you think it is a good idea for tongue blades to be disposable? Yes, it is a very good idea that the tongue blade is thrown away after it is used one time. If the doctor used the tongue blade on someone else after he had used it on you, the other person might get a sore throat from germs on the tongue blade. LPN's help make sure that the doctor has enough tongue blades. The doctor may ask the LPN to hand him a tongue blade.

Please put the tongue blade and package with the tongue blade back in its right place. Remember, a tongue blade is also called a tongue depressor.

Look for tool #3. I'm sure you have seen an LPN or a nurse use this tool. It is a thermometer. The LPN puts the thermometer in your mouth to see if you have a fever. Do you know what a fever is? You have a fever when your body becomes warmer than it should be. The numbers on the thermometer tell the LPN how warm your body is. You can look at the thermometer, but do not put it in your mouth. If someone else has put it in his mouth, his germs could be spread to you and you might become sick. (Pause) Your mother may have a thermometer at home that she uses when someone feels sick.

Look at tool #4. (Pause) Inside the package, there is a disposable alcohol pad. Why would a practical nurse use an alcohol pad? I'm sure a nurse has used an alcohol pad on you at some time. The alcohol pad is rubbed on your arm, right before and after you receive a shot. The alcohol cleans the skin where the shot is given. Would you like your arm to be rubbed with the same alcohol pad that was used for someone else's arm? No, you wouldn't--that is why the alcohol pad is disposable.

Please put the alcohol pad package back in the right place on the tray.

Look for tool #5. (Pause) I'm sure that you have seen this tool at some time. Look carefully at the tool. Do you know what it is? This tool is called a hypodermic-syringe. Hypodermic-syringe is a long word. Why don't you say the word after me. HYPODERMIC-SYRINGE. This is such a long word that many LPN's shorten the word and say HYPO. We will call this tool a HYPO. Remember HYPO is a short name for HYPODERMIC. You might like to know that the word HYPODERMIC means that you are putting medicine under the skin. That is exactly what we use the HYPO tool for. The HYPO is used to give shots. When shots are given, medicine is placed under the skin. Pull the orange cap off the HYPO. (Pause) Pull the white top out. Move the white top up and down. (Pause) Do you see the numbers on the side of the hypo? Why are numbers on the Hypo? (Pause) The numbers are used to help measure the amount of medicine to be given in a shot. Have you ever had a shot of medicine?

Shots are given to boys and girls when they have a cold or to prevent them from getting other diseases. The medicine helps them feel better. It is important that boys and girls do not have a shot with as much medicine as their mother and father, because their bodies aren't as big. It is also important that boys and girls have more medicine in a shot than a small baby, because their bodies are bigger than babies' bodies. Remember why the numbers are on the side of the hypo? The numbers are used to help measure the amount of medicine to be given in a shot.

Please look at tool #6. (Pause) What do you think belongs inside this tube? The needle for the hypo belongs inside this tube. The needles have sharp points. They must be kept in a safe place so no one will get hurt by them. That is why the needle comes inside a tube. The needle was not put in the tube because someone might get hurt examining it. After the shot has been given, the hypo, needle, and the needle tube are thrown away. When you get a shot from a disposable hypo, you know that no one else has had a shot from it. No germs can be spread from one person to another.

Don't forget to put the orange cap back on the hypo. Please put tools #5 and #6 into their right places on your tray. (Pause)

Please look at tool #7. (Pause) Do you know what #7 is? (Pause) #7 is a cotton ball. Do you know what I use the cotton ball for? (Pause) Sometimes after a patient has received a shot their arm feels sore. Has your arm ever felt sore after being given a shot? Perhaps your arm starts to bleed a little where the shot was given. Sometimes I need to wipe the blood away from a patient's arm. If the arm is sore, I couldn't use anything rough; THAT IS WHY I USE THE SOFT COTTON BALL. Since the cotton ball will get some blood on it, it certainly could not be used again on another patient. That is why the cotton ball is disposable.

Please put #7 back in its right place on the tray. (Pause)

Look at tool #8. (Pause) This is a medicine cup. I use the plastic cup to measure liquid medicine. A liquid medicine might be cough medicine. Do you see the numbers on the medicine cup? The medicine must be measured for the same reason medicine in a shot must be measured. You need to have less medicine than your parents, and more than a baby. If you had the same amount of medicine as a baby, you wouldn't be getting enough medicine to help you feel better. If you had as much as your mother and father, you would have too much medicine which might make you more sick. The medicine cup is disposable too so that you won't take medicine from the cup of someone who has put their germs on the cup.

When I measure medicine I must be very careful to give the right medicine to the patient. I know which medicine to give the patient because the doctor writes on the patient's chart the kind of medicine that I should give the patient. Remember, the chart is the piece of paper on which information about the patient is written.

Look at #9. (Pause) #9 is called gauze. Gauze might be a new word for you. Let's say the word gauze together. GAUZE. What do you think I would use gauze for? I use gauze as a bandage. It protects a cut from getting dust and dirt inside. Sometimes a cut may get dirt and dust inside it, because people don't take care of their cuts by putting bandages on them. The gauze is placed on a cut or scrape and a piece of tape holds the gauze down. Please put the gauze back in its right spot on the tray. (Pause)

Look at #10. (Pause) Feel #10. (Pause) What do you think it is? It is an elastic bandage. Look at #11. (Pause) Pull the bandage, stretch it. The bandage stretches because of the elastic; that is why it is called an elastic bandage. Do you see the small white lines of elastic? I will put an elastic bandage around someone who has hurt a muscle, turned their ankle, or sprained their wrist. People who play in sports such as basketball, baseball, and football many times will pull a muscle or sprain their ankle or wrist. I wrap the elastic bandage around the area they have hurt. This bandage must be wrapped tightly in order to hold their muscle. Have you ever been watching television and seen a basketball player with an elastic bandage wrapped around his elbow, knee, or ankle?

The elastic bandage sticks to itself; even though it does not feel sticky. Push one side of the bandage against another side of the elastic bandage. Press down. Pull it apart. (Pause) Did you see how it stuck together? Why don't you try to wrap the elastic bandage around your knee, ankle, or elbow? You may wrap the bandage now. Remember the bandage will stick to itself if you push two ends of the bandage together and press tightly. Turn the recorder off while you use the bandage. Please put the elastic bandage back in its right place on the tray.

Please look at #12. (Pause) This is a disposable glove. It is a glove made of material that is thrown away after one use. Many times a nurse will help a doctor perform an operation. She will hand the doctor different instruments. The LPN's hands could have germs on them. If it weren't for the gloves, the germs could be passed on to the patient the doctor is operating on.

Try the glove on. Stop the recorder until you get the glove on. How does it feel? Please wear the glove and pick up #13 from the tray. This is an emesis pan. Say the word emesis pan after me. EMESIS PAN. (Pause) Does the emesis pan look like a pan to you? Yes, it does. That is why part of its name is pan. Look at the shape of the pan. Why do you think it curves? What might the emesis pan be used for? Sometimes sick patients cannot get out of bed and they would like to brush their teeth. I hold the pan under their chin so that they can brush their teeth. The pan is curved so that it fits easily under the chin of the patient.

Hold the emesis pan under your chin. Does it fit easily? Sometimes sick people need to cough or spit. I also hold the emesis pan under their chin if they need to cough or spit.

Sometimes a patient may feel sick after he has eaten. The food does not want to stay in their stomachs; and in order for the patient to feel better, the food must come out of his stomach. This is called vomiting and I have to hold an emesis pan under a patient's mouth so he can vomit. Do you see the numbers on the emesis pan? These numbers are used to measure the food that a patient loses when he vomits. A person needs food to live; that is why I must know how much food a person has lost. Please put the gloves and the emesis pan back in their proper places. (Pause)

I work with many people: doctors, other LPN's, nurses, and patients. I must be friendly and not grumpy. Are you friendly? Sometimes boys and girls are afraid to have a shot even though it will make them well again. I help boys and girls realize that a shot will help them feel better and that shots will keep them from getting diseases that are catching--like measles and whooping cough. I work with sick people; sometimes I try to cheer them up with a big smile and a friendly Hello. Do you like to cheer people up? I must keep my uniform clean and neat at all times. Do you like to wear clean clothes? I must remember the names of the tools I work with. Let's see if you can remember the names. As I say the name of a tool, you point to that tool. As you point to each tool, think what it is used for.

1. rubber glove
2. tongue blade
3. medicine cup
4. emesis pan
5. face mask
6. hypo
7. elastic bandage
8. gauze
9. alcohol pad
10. needle holder
11. cotton ball

Look at the pin you are wearing. What does LPN mean? If you said licensed practical nurse you were right. You have seen pictures of the LPN's work, and you have seen and used some of the LPN's tools. Would you like to be an LPN? Now that you have looked at some of the tools and materials used by an LPN, perhaps you would like to listen to Tape #1 and look at the slides again. Look to see if the

LPNs in the pictures are doing some of the things you have just done.

Please be sure that the tools have been put away in their right place. Take off your LPN hat and LPN pin and put them into the box. Rewind the tape, place the tape back in its proper place, and turn off the tape recorder.

INDUSTRIAL ORIENTED OCCUPATIONS

The Electrician

Overview

There are four activities in the Electrician OCCUPAC. The first activity is a slide-tape presentation on the work of an electrician. In activity two the students learn how to wire up lights with a battery providing the necessary electricity. In activity three the students wire light switches. Activity four is a set of optional activities. Fewer instructions are given for activity four. The students are expected to apply some of the wiring principles learned in activities two and three to the work they are asked to do in activity four. In presentation four students plug an electrical cord into an electrical outlet. Considerable safety precautions have been outlined relative to plugging cords into outlets. The teacher should also emphasize these precautions.

Taped instructions are provided for all four activities. The activities are designed for use on an individual instruction basis.

Tape and slides used for Activity 1 should be presented again after the child has completed Activities 2, 3, and 4.

INDUSTRIAL ORIENTED OCCUPATIONS

The Electrician

Activity 1

Materials and Equipment Needed

1. Tape recorder and earphones
2. Cassette tape #1 from Electrician OCCUPAC
3. Slide Viewer
4. Set of 9 slides from Electrician OCCUPAC

Vocabulary

1. appliances
2. circuit
3. circuit breaker
4. electricity
5. fuse box
6. meter
7. outlet
8. plug
9. power company
10. switch
11. wire

Tape Script

Hello!

I'm an electrician and today you are going to see some of the work that I do. I am busy today rewiring an older house so the people living in it can use all the new electrical appliances which have been developed since the house was built. Do you know what appliances are? Appliances are things like television sets, refrigerators, and air conditioners. All of these appliances use electricity. When the older house I am working on was built there were few electrical appliances; now the people living in the house have many appliances. Their house needs to be rewired so it will be safe to use these appliances.

Before you can watch me work, you will need to insert the slides into the slide viewer. Pick up the slides and put them in the viewer. (Pause)

(Look at Slide 1) This is the kind of truck that I use to haul my tools and supplies.

(Look at Slide 2) Sometimes I work inside buildings and sometimes I work outside buildings. Here you see me working outside a house. I am hooking up the electricity from the power line so that electricity can go into the house from the power line. All the electricity that is used in the house will come through this power line.

(Look at Slide 3) Do you know what a power line is? Have you ever seen a power line? Have you ever seen tall poles beside a street or beside a road? Wires are attached to these poles. These wires you see in the picture are called power lines. Sometimes the wires are buried in the ground. It does not matter whether the wires are on a pole or whether they are buried in the ground--the wires are still called power lines.

(Look at Slide 4) I told you that I am hooking up the electricity from the power line so that electricity can go into the house. Electricity is not free. Your mother and your father have to pay for using the electricity that comes from the power line. The box you see in the picture is called a meter. This meter knows how much electricity has been used in this house. A man comes each month and looks at this meter. The meter tells him how much electricity has been used. The power company that owns the power lines will charge the people living in this house for the amount of electricity they have used. Already, you have learned that one of the things I do is to hook up meters to power lines.

When I hook up the meter I must be very careful. An electrician has to know a lot of things about electricity. Being an electrician can be very dangerous work because electricity is very powerful. Electricity can kill people if they touch the wires that are carrying the electricity. I'm sure your parents have told you to be very careful when you plug a radio, a record player, or any other appliance into an outlet on the wall. I'm sure you know what an outlet is.

(Look at Slide 5) You learned that the electricity comes through the meter and enters the house. After the electricity gets in the house it goes by wires to a fuse box or a circuit breaker. You will learn in a few minutes just what the fuse box and the circuit breaker do. In this picture I am taking a fuse box out. A fuse box divides the house into sections called circuits. Different areas of the house are on different circuits. All the bedrooms might be on one circuit. The dining room and the kitchen might be on another circuit. If too many electric appliances are used on one circuit, a fuse in the fuse box will blow or will burn out. A new fuse has to be put in the fuse box before the appliances can be used. If the fuse did not blow or burn out, the wires could overheat, and a fire could start. A fuse helps keep your house safe from fire.

(Look at Slide 6) I told you in the last slide that I was taking a fuse box out. I just told you that fuse boxes help keep our houses safe from fire. Why would I want to take a fuse box out of the house? We now have a better way of telling us when we are using too much electricity. This better way is by using a circuit breaker. In this slide I am putting in a circuit breaker in the spot where the fuse box was. The circuit breaker works just like the fuse box except there are no fuses to replace. When we use too many appliances at one time the circuit breaker lets us know that we are using too much electricity. When we are using too much electricity a switch in the circuit breaker will open the circuit on which we are using too much electricity. Remember--a circuit is for a section of the house. If I was using an electric stove, an electric mixer, an electric refrigerator, an electric can opener, an electric knife, and an electric toaster all at one time I might be using too much electricity on the kitchen circuit. The little switch in the circuit breaker would switch the kitchen circuit off and there would be no electricity to operate the appliances. None of the appliances would work. When this happens, you must then go to the circuit breaker box and flip the switch back on.

(Look at Slide 7) One of the circuits from the circuit breaker box is going to have a stove on it. In this slide, I'm wiring the outlet into which the stove will be plugged.

(Look at Slide 8) I like my work because I work in so many different places. Not all electricians work in as many different places as I do. Some electricians may work only in schools or only in businesses doing all the electrical wiring and other electrical work that needs to be done. All electricians have to know a lot about electricity but there are many different places an electrician can choose to work.

Another part of my job is to repair electric signs. The sign in this slide had quit flashing. I'm going to take it apart to see what is wrong. Sometimes I need to take my ladder along so I can reach the signs. I need to have my tools with me when I work. See the belt I am wearing around my waist? This belt holds the tools which I will use most often. I will use these tools to fix this sign.

(Look at Slide 9) I've taken the sign apart and guess what was wrong? It was only a burned out light bulb.

I'll put this new bulb I have in my hand in and this sign will be flashing again.

I enjoy my work because I know that people depend on me to help them. Sometimes people call me very late at night if they need me to help them. I like to work with my hands and I like to use tools. I have chosen to be the kind of electrician who works in many different places. I work inside and I work outside. I work on old houses and I wire new houses when they are being built. Do you like to do any of the things that I do?

I studied very hard to learn about electricity. On the next tape I will help you learn some things about electricity so you can practice doing some of the things I do.

Now, rewind the tape, turn off the tape recorder, and place the tape and slides back in their proper place.

INDUSTRIAL ORIENTED OCCUPATIONS

The Electrician

Activity 2

Materials and Equipment Needed

1. Tape recorder and earphones
2. Cassette tape #2 from Electrician OCCUPAC
3. Tools and belt
4. Battery
5. Wires
6. Green board with electrician's activity
7. Yellow board with electrician's activity

Vocabulary

1. battery
2. light bulb
3. nut
4. pliers
5. post
6. screw
7. screwdriver

Tape Script

Hello!

Today you are going to be an electrician. You are going to wire up lights. Before you can start working you must get out the electrician's tool belt and put on the belt. Put the belt around your waist and fasten it so that it will not fall off your waist. An electrician wears his tools on his belt so that he will always have them with him when he needs them. You will be needing the tools today.

Turn off the tape recorder while you are putting on the belt. Start the recorder when you are ready to do the next thing.

Look at your tools. The tools you are going to be using are a screwdriver and pliers. The screwdriver is the tool with the thick, plastic handle. It is used for tightening and loosening screws. Please take the screwdriver out of your belt. (Pause) The pliers are used for bending wires and holding wires when you are hooking them up. Please find the pliers. (Pause) Put the screwdriver and the pliers back in your tool belt. (Pause)

Look in the package and find the battery. (Pause) The top of the battery has two metal objects that look like screws. Look at the screws. These are called posts. You will be hooking wires to these posts. The electricity that is stored in the battery will flow from one post to the other post when wires are attached to these posts. When electricity flows from one post to another this is called completing a circuit.

Now, look in the package and find the green board with the two light bulbs on it. (Pause) Your job today is to wire it so the bulbs will light up. If you listen carefully, I will tell you how to do it. Stop the recorder whenever you need time to complete my directions. Start the recorder when you are ready to listen to a new direction.

Get two long wires and one short wire out of the OCCUPAC. Take the green board out of the box. (Pause) Look at the green board. See where the red line runs to the light bulb, between the light bulbs, and then back off the board? This red line shows you where you will run the wires.

Use wires that have little hooks at each end. Pick up the screwdriver. Loosen screw number 1 on the light bulb holder. Use your screwdriver. Be careful not to take the screw all of the way out. (Pause) Pick up one of the long wires. Now put the hook on the end of the wire around the screw and tighten the screw with the screwdriver so that the wire is tightly fastened. Turn off the tape recorder while you are doing this. Start the recorder when you have finished this part of the task.

Loosen screw number 2 on the light bulb holder. (Pause) Use your screwdriver. Pick up the short wire. Hook one end of the short wire around screw number 2. Tighten screw number 2 with the screwdriver. Turn off the tape recorder while you do this.

Loosen screw number 3 on the light bulb holder. Use your screwdriver. Hook the other end of the short wire to screw number 3. Tighten screw number 3 with the screwdriver. Turn off the tape recorder while you do this.

Loosen screw number 4 on the light bulb holder. Use your screwdriver. (Pause) Pick up the long wire that you haven't used. Hook one end of the wire around screw number 4. Tighten screw number 4 with the screwdriver. Turn off the recorder while you do this.

Pick up the battery. (Pause) Remember--I told you there were two posts on the top of the battery. With your fingers, turn the nut on one of the posts. Give the nut 6 turns so that you can loosen the nut. (Pause)

Find the long wire that is attached at screw number 1. (Pause) Hook the end of this wire to the battery post. Then with your hand, tighten the nut on the battery post. Turn off the tape recorder while you do this.

What happened? Did the bulbs light up? Why not? You have not completed a circuit. Find the long wire that is attached to screw number 4. Hook the end of this wire to the other battery post. Then with your hand, tighten the nut on the battery post. Turn off the tape recorder while you are doing this. What happened? Did the bulbs light up this time? If they didn't, check your wiring. The wires may need to fit closer to the posts around which they are hooked. The electricity should be flowing from the center of the battery to one bulb, through the bulb, then to the other bulb, through the second bulb, and back to the side of the battery.

If the bulbs are lighted, you have a completed circuit. Electricity will only flow from the battery when you have a completed circuit. On your second job there is a switch so you can open and close the circuit. Today you have learned how to wire up light bulbs. The bulbs were lighted from the electricity provided by the battery. An electrician must do some of the things you did today when he wires places where light bulbs are used. However, the electrician runs wires to power lines rather than to batteries. Remember, we said electricity from a battery will not hurt you, but electricity from a power line can kill you.

Now take all of the wires off the green board, put all the materials back in the package where you found them. When you have finished, rewind the tape, stop the tape recorder, and place the tape back in its proper place.

INDUSTRIAL ORIENTED OCCUPATIONS

The Electrician

Activity 3

Materials and Equipment Needed

1. Tape recorder and earphones
2. Cassette tape #3 from Electrician OCCUPAC
3. Tools and belt
4. Battery
5. Wires
6. Yellow board with electrician's activity

Tape Script

Hello!

You're going to be an electrician again today. Remember that the electrician wears his tools on his belt. You're going to be needing your tools again today, so turn off the tape recorder while you put on the belt.

Do you remember the names of the tools you have on your belt? Remember--the one with the thick plastic handle is the screwdriver. It is used for loosening and tightening screws. You also have pliers on your tool belt. They're used for bending wires and holding wires while you're hooking them up.

Are you ready to start on your second job? Take out the yellow board with the switch and the two light bulbs on it. This job is a little harder than the green board, but if you follow directions, you'll be able to do it. (Pause) Stop the recorder whenever you need time to complete my directions. Start the recorder when you are ready to listen to a new direction.

You're going to need three short wires and two long wires. Use red wires or white wires--whichever you like. Now get out the three short wires and two long wires. (Pause)

Look at the yellow board. See the red lines on the board? These red lines show you where you are to run the wires. The lines that run off the end of the board will be long wires because they go to the battery. You will use the short wires for the other three short lines. Are you ready to begin? Now follow directions very carefully and I'll tell you how to make the lights come on. Move the white handle--the long white fixture. You may need to move it when you are tightening screws.

Be sure there are little hooks on both ends of all the wires you are going to be using. Each time you put a wire on the board you should turn off the tape recorder and then turn it back on when you are finished.

With your screwdriver, loosen the screw on the switch on the end where the line runs off the board. (Pause) Hook one end of a long wire under the screw and tighten it down. (Pause) Now, with your screwdriver, loosen the screw on the other end of the switch. You will have to pull the handle of the switch up so you can get to this screw. (Pause) Hook a short wire under this screw and tighten it down with your screwdriver. (Pause)

See where the red line runs from the switch to the light bulb holder? With your screwdriver, loosen the screw on the light bulb holder where this red line comes up to it. (Pause) Hook the short wire from the switch around this screw. Don't tighten it down yet. Hook another short wire around this screw. Now tighten it down with your screwdriver. (Pause)

See where the red line runs to the light bulb holder at the end of the board? With your screwdriver, loosen the screw where the red line comes up to the light bulb holder. Hook the end of the short wire from the other light bulb holder around this screw. Now tighten it down with the screwdriver. (Pause)

With your screwdriver, loosen the screw on the other side of this light bulb holder. Hook the end of a short wire around it and tighten it down with your screwdriver. (Pause)

See where the red line runs to the next light bulb holder? With your screwdriver, loosen the screw where the red line comes up to the light bulb holder. (Pause) Hook the short wire from the other light bulb holder around this screw. Don't tighten it down yet. Now hook the end of the long wire that you haven't used yet around this screw also. Now with your screwdriver, tighten the screw down on both wires. (Pause)

Check all your wires to see if they are all tightened down. If they aren't, fix them. If they are tight, you are ready to hook up the battery. Get it out of the OCCUPAC. (Pause)

Remember--I told you about the posts on the battery and how electricity flowed from one post to the other when you have a completed circuit.

Loosen the nut on one of the posts. (Pause) Hook the end of one of the long wires around the post and tighten the nut down on it. (Pause)

Loosen the nut on the other post. Hook the end of the other long wire to the post and tighten the nut down on it.

Are your light bulbs on? Pull the switch up and see what happens. (Pause) The switch opens the circuit and the lights go off. Close it again and they will come back on. (Pause)

Do you have light switches in your classroom? An electrician wired those switches. He did some of the same things you did today. However, much more electricity goes through the light switches in your classroom because they are wired to the power line. The light switch on the yellow board is wired to a battery. The electricity from the battery is not enough to injure you. However, the electricity which flows through the light switch in your classroom could kill you if you touched the wires under the switch.

Now take the wires off the yellow board, and put the wires and the board back in the package. (Pause)

If you have more time and want to do more wiring, go on to the next tape. If you don't have any more time now, maybe you can do more wiring some other day.

Now that you have done some of the work that an electrician does, perhaps you would like to look at the slides again to see how some of the work you have done relates to the work that you see the electrician doing.

Rewind the tape and turn off the tape recorder. Place the tape back in its proper place.

INDUSTRIAL ORIENTED OCCUPATIONS

The Electrician

Activity 4

(Optional Activities)

Materials and Equipment Needed

1. Tape recorder and earphones
2. Cassette tape #4 from Electrician OCCUPAC
3. Board with colored lights
4. Orange board with electrician activity
5. Pliers
6. Screwdriver
7. Wires
8. Electrical outlet

Vocabulary

1. buzzer
2. outlet
3. prongs
4. shock
5. switch

Tape Script

Hello!

You're going to be an electrician again today. Remember when you looked at the slides and you saw the electrician working on a sign that had quit flashing? Today I have a job for you. Take out the board with all the colored light bulbs on it. Is there an electrical outlet near you where the tape recorder is plugged in? In a few minutes I am going to ask you to plug the colored lights into the outlet. Be very careful not to touch the metal prongs on the plug when you plug in the colored lights, or you will get shocked. Now plug the cord for the electric lights into the electric outlet and see what happens.

Look at the switch in the middle of the board. It should be switched to the red position. Now switch it to the white position. Wait a minute and see what happens.

Remember I told you that the electrician was working on a sign that had quit flashing. What do you suppose made that sign flash? Your colored lights should be flashing by now if the switch is on the white position. The colored lights flash just like the lights on the sign flash.

What do you suppose happened when you flipped the switch? When the switch is on red, the lights stay on all the time. When you flip the switch to white, the white light comes on. When the white light is on, all the lights flash. The white light is causing all of the lights to flash. It is opening and closing the circuit and is causing all the lights to go off and come back on.

You can unplug the cord from the electrical outlet and put the board back in the pack.

If you have more time and want to do more wiring, there's another job in the pack for you to do. Take out the orange board. This board has a button switch, a buzzer, and a light bulb. If you can figure out what to do and if you wire the board correctly, the buzzer will buzz and the light will come on when you push the button. I'll give you a few hints and then you can try to decide what you should do. Here are my hints:

The wires that go off the end of the board go to the battery.

You will have to take the gold buzzer off the pegs and turn it over to wire it.

The white lines will tell you where you should run the wires and where to hook them.

Remember--when you worked with the yellow and green boards you learned how to use your pliers and your screwdriver.

An electrician must remember what he has learned because there won't be anyone there to tell him how to wire when he has a wiring job to do.

When you have finished wiring the orange board, the buzzer and the light both work when you push the button. When you have finished wiring, take all the wires off the board and put all the materials back in the pack.

This is a hard electrician's job. See if you are a good electrician.

You can rewind the tape, stop the tape recorder, and place the tape back in its proper place. You won't be needing the recorder any more today.

PERSONAL AND PUBLIC SERVICE OCCUPATIONS

The Industrial Sewing Machine Operator

Overview

There are two activities in the industrial sewing machine operator OCCUPAC. The first activity is a slide-tape presentation on the work of an industrial sewing machine operator. Activity 2 is an activity related to sewing. In the second activity students trace around a puppet pattern, cut the puppet from burlap, and sew the puppet. A sewing book which illustrates all the steps in the making of the puppet is included in the OCCUPAC.

Tape and slides used for presentation one should be presented again after the child has completed the project described on tape two.

Taped instructions are provided for the two activities. The activities are intended for use on an individual instruction basis.

PERSONAL AND PUBLIC SERVICE OCCUPATIONS

The Industrial Sewing Machine Operator

Activity 1

Materials and Equipment Needed

1. Tape recorder
2. Cassette tape # 1 from Industrial Sewing Machine Operator OCCUPAC
3. Slide viewer
4. Set of 12 slides from Industrial Sewing Machine Operator OCCUPAC

Vocabulary

1. cut
2. design
3. die
4. factory
5. industrial
6. material
7. operator
8. sew
9. sewing machine

Tape Script

Hello, I am an industrial sewing machine operator. I am happy to have an opportunity to show and tell you about what an industrial sewing machine operator does. Today we will visit where I work. You will see many other people. Before we begin our visit, listen to this sound. (Sound of machines) Do you know what that sound is? Listen again. (Sound of machines) Did you think it was the sound of sewing machines? You were correct. That is the way many machines sound when operators are working. I operate one of the sewing machines you heard. You will learn more about my work as you look at the slides and listen to this tape.

Are the slides in the viewer? (Pause) The numbers are on the bottom of the slides and should be in order from one to twelve. (Look at slide 1.) This is the building in which I work. Many people work here at different kinds of jobs. Come inside to see what we do. (Look at Slide 2) I work with all the people you see here. As you can see some of us are busy at our sewing machines. Have you ever seen a sewing machine? Probably you know someone who has one--maybe your mother or aunt or grandmother. Sewing machines used at home are different from the one I use in the factory. My industrial sewing machine is heavier and stronger than ones used at home. The sewing machines used in factories must operate all day long so they need to be very strong.

Almost all clothes and shoes that people wear are stitched by a sewing machine operator. Look at your shoes and clothes now to find the sewing. (Sound of sewing machines) Many things other than clothes are stitched. Things you use every day such as mattresses, furniture covers, curtains, baseballs, lamp shades, umbrellas--all are put together by an industrial sewing machine operator. Later after you hear this tape you might want to make a list of all the things you use that have been stitched on a sewing machine.

I work in a factory that makes baby clothes. If you have a baby brother or sister you know how little some of the clothes are. The cloth for baby clothes can be any color, (Look at Slide 3) --almost any material. Another name for the cloth is material. I sew pieces of material together to make baby clothes of different kinds.

(Look at Slide 4) The two women in this slide are cutting material for a sewing machine operator to sew. In a factory each person has a special job. Mine is sewing together the pieces of material which make baby clothes. A sewing machine operator could work in a factory which makes other things besides baby clothes.

(Look at Slide 5) The cutting tools these people use are called dies. A die is really the outline of a pattern. The die is made of metal. It works like the cookie cutters you might have at home. A cookie cutter is pressed into cookie dough to shape a cookie. A die is pressed into material to cut the material into shapes. The coats people wear have sleeves and backs and fronts which are cut from material. Each piece is cut with a different shaped die. Sewing machine operators can sew many objects in a day because other people cut the parts to be sewed in exactly the right sizes and shapes.

(Look at Slide 6) Here is a man cutting many pieces of material with the help of a die. I will sew these pieces together. Each thing I make will be exactly alike.

(Look at Slide 7) Here I am at my sewing machine. Can you see how it is different from a machine you may have seen at home? Each piece of material that is to be sewed is put in a special basket. Then when I get ready for a piece to sew, I know just where to reach. Look again at your own clothing. Can you see where the pieces were sewn together? (Look at Slide 8) This slide shows my hands holding the cloth. Do you see the needle and thread which sew the cloth?

(Look at Slide 9) In this slide I am sewing parts of material together. Why do you think I am sewing with white thread? (Pause) If you said because the material is white, you are right. Look for the thread sewn on your clothes. (Pause) Is it the same color as the material? The same colored thread and material are usually used so that the sewing won't show very much.

(Look at Slide 10) My sewing machine also helps me sew decorations on clothing. In this slide I am sewing a blue design on the white material. Do you have a design on the clothing you are wearing today?

(Look at Slide 11) Here are all the clothes that were sewn today in this factory. I made many of them. The people I work with made many of them also. After we have completed the sewing, the clothes are put into piles, boxed, and sent to stores for your mother or someone else to buy.

(Please look at Slide 12) In this slide the ladies are putting the clothes into the boxes. There is a big table so there is much room for them to work.

(Please look at Slide 13) In this picture the clothes have already been put into boxes. These boxes have see-through tops so people know what is inside the boxes when they are shopping.

Do you remember what a die is? A die cuts through pieces of material. It cuts the material into parts of dresses, blouses, skirts, shirts, pants, so that these parts can be sewn together. What is material? You have been watching how baby clothing is made for people to buy. Many other things are made from material. Remember that earlier I told you that mattresses, lamp shades, and other things have pieces that are sewn together?

Many people working together are needed in factories. My special job is to sew together pieces of material. Everything I make must look exactly alike. I need to be very careful about how I sew. If I make a mistake no one would want to buy what I sewed. I do the same thing over and over many times a day.

I hope you enjoyed visiting the place where I work. There may be factories in your town where people are industrial sewing machine operators. Why don't you ask if there are factories where you live.

Tape 2 will help you learn how important sewing is.

You can't have a real sewing machine, but I hope you can imagine how a machine could do what you will do by hand as you listen to tape 2.

After you have listened to tape 2 I hope you will come back and listen to this tape again to review how and where I work.

Now rewind the tape. After you have finished rewinding the tape, turn off the tape recorder, and place the tape and slides back in their proper place.

PERSONAL AND PUBLIC SERVICE OCCUPATIONS

The Industrial Sewing Machine Operator

Activity 2

Materials and Equipment Needed

1. Tape recorder
2. Cassette tape # 2 from Industrial Sewing Machine Operator OCCUPAC
3. Burlap
4. Yarn
5. Chalk
6. Needle
7. Puppet Pattern
8. Scissors
9. Sewing book

Vocabulary

1. burlap
2. cardboard
3. eye
4. knot
5. needle
6. pattern
7. sewing book
8. stitch
9. yarn
10. thread

Tape Script

Hello, remember me? I am the lady who sews in a factory. Today I have some very interesting things to show you, and something fun for you to do. You cannot come to the factory and use a big sewing machine, nor can you have any kind of sewing machine in your room. What I have planned for you is to sew by hand. You will learn how important it is to be able to follow directions and do exactly what is planned. Can you imagine what clothes would look like if people who sewed could not follow directions? All the things an industrial sewing machine operator makes must look exactly alike.

Remember all the things you saw when I showed you through where I worked? You saw people cutting material; you saw people sewing material--today you will do some of these things.

Before we begin, make sure you have your sewing book. If you don't have your sewing book, look for it in the package of materials. Turn off the recorder while you are getting the sewing book. Then turn the recorder back on. On this tape, stop the recorder whenever you feel the need to do so.

Look at Page 1. (Pause) You will be making a hand puppet. This is a hand puppet I made. Touch the material. How does it feel? Does it feel rough? This material is called burlap. You will be making your puppet from burlap. Look at the burlap in the OCCUPAC. As you can see, you have many colors to choose from. You can mix or match the colors by sewing a puppet from one color or from two colors. The front of your puppet might be one color. The back of your puppet might be another color.

Look at Page 2. (Pause) Touch the yarn. How does it feel? Soft and fuzzy? You will be using yarn to make your puppet. You will be working with the yarn like I work with thread. Have you ever watched your mother, sister, or grandmother sew by hand? You will be sewing by hand like they do.

Before you can start sewing, you need to decide which color or colors of burlap and yarn you want to make your puppet from. As soon as you decide which colors you would like, take two pieces of burlap, one piece of yarn, and a piece of chalk from the OCCUPAC. Remember--you will need: 2 pieces of burlap, (Pause) one piece of yarn, (Pause) and a piece of chalk. Stop the recorder while you are getting these items. Start the recorder when you are ready.

Turn to Page 3. (Pause) The first thing that you will do is to cut around a pattern. The pattern is the shape of the puppet before it is sewed together. The piece of cardboard is the pattern. Do you remember on the other tape you saw picture of dies? This piece of cardboard will be used like the die in those pictures.

The cardboard is placed on the piece of burlap. Put the piece of cardboard on one of the pieces of burlap that you chose and draw around the cardboard pattern with a piece of chalk as I did on page 3. If you look closely, you can see where I have drawn. You may have to draw around the pattern several times with the chalk so you can see where you have drawn. Stop the recorder while you are drawing. Start the recorder when you have finished drawing.

When you visited me where I worked, I showed you some dies. The dies were made of metal. They looked like our cardboard pattern and they worked like a cookie cutter. Our cardboard pattern is like a die--only you are cutting around the pattern. Where I work a machine cuts with a die.

Look at Page 4. (Pause) After you have drawn around the cardboard, take the cardboard off the burlap. You can see where you have drawn. You still have one more drawing job to do. Now lay the cardboard pattern on the other piece of burlap that you chose to work with. Again, draw around the cardboard pattern. Stop the recorder while you are drawing. After you have drawn around the cardboard pattern, take the cardboard off the burlap. You should now have two pieces of material on which you have drawn. One of these pieces of material will be the front of your puppet and one will be the back of your puppet. What do you think you do next?

Yes, of course, you must cut out your puppet. Cut along the lines you have drawn on the two pieces of material. Look closely on Page 4 of your sewing book to see how I have started cutting. You must be careful when you work with scissors. You never run with scissors and you must put them away when you are not using them. Now, turn off the tape recorder while you are cutting out your puppet.

Look at Page 5. (Pause) Here is some yarn and a needle. You will use the needle and yarn to sew your puppet. Look at the needle. One end of the needle has a small hole through which the yarn has been placed. This hole is called the eye of the needle. Putting the yarn through the eye is called threading the needle. You will need to thread your needle before you can sew.

Look in the OCCUPAC and find a needle. Now, take your yarn and thread it through the eye of the needle. You may have to try several times before you get the yarn through the eye. Turn off the recorder until you get your needle threaded.

Now that you have threaded your needle, look at Page 5 again. Notice how I have pulled the yarn through the eye of the needle. I did this so that my yarn would stay in the needle while I am sewing. Have you pulled your yarn through the needle so that it looks like my yarn?

Look at Page 5 again. Notice that I have tied a knot on one end of my yarn. Tie a knot in your yarn in the same place where I have tied a knot in my yarn. Stop the recorder while you are tying your knot. Do your needle and thread look like my needle and thread?

Look at Page 6. Here is a puppet that I have sewn. I placed the two pieces of burlap together so that I could use my needle and thread to sew the pieces together. Take the two pieces of burlap that you have cut out and lay them together. In a few minutes I will ask you to use your needle and thread and sew around the pieces like I have sewn.

Can you find where I have placed my knots? I have placed knots at the beginning and at the end of my sewing so that the yarn will not come out of my material. When I ask you to sew you should start your sewing at the same place where I have placed my knots. When I tell you to start you can start sewing at either knot--it does not matter at which knot you start. You should push your needle through both pieces of burlap. Pull the yarn all the way through until the knot stops the yarn. You will then continue running your needle back and forth through both pieces of material until you have sewn all the way around the puppet. You may have to tug and pull to get the yarn through the burlap. The yarn that shows through the burlap is called a stitch. You will make your stitches close together. Putting the stitches close together makes your sewing stronger and your puppet will last longer. Sew as far away from the edge of the material as I have sewed. When you have finished sewing all the way around the puppet, tie a knot and with your scissors, cut the yarn like I have cut the yarn.

In a few minutes now, I will tell you to start sewing. First, there are two more things that I would like to tell you. After you have finished your puppet, turn the puppet inside out so that the puppet looks like the one on Page 7. I have added hair,eyes, nose, and a mouth to my puppet. You can use whatever materials you would like to use if you want to put a face on your puppet.

Today you have seen the sewing book. With the help of the sewing book you have learned how to draw around a pattern, how to cut out the pattern, and how to sew with a needle. Now, you can begin to sew.

If you have any questions, you may look through your sewing book and listen to the tape recorder at any time. After you have finished with the tape, don't forget to rewind the tape, turn off the tape recorder, and place the tape back in its proper place.

A-100

OCCUPAC FOR
SELF EXPRESSION LEARNING FOLLOW-UP

Self expression is often one of the best vehicles for conveying evidence regarding what learnings have been internalized. A child restructures the universe according to his own perceptions, and important clues to those perceptions may come from our observations while he is expressing himself in one way or another. Consequently, some form of self-expression would seem to be helpful in determining specific interests, feelings, and knowledge concerning occupational concepts that a child might have developed. The child reveals the perspective from which he views certain concepts when he is allowed to freely express himself. A child remakes the universe in his own way and he should be given opportunities to do so.

Things come first in children's learning--before words and before understanding. The OCCUPACS prepared for specific occupations contained things. We may rightfully wonder what meanings a child may have derived from his experience with these "things." What, for example, did it mean to the child when he put on the licensed practical nurse armband? What did it mean to him when he heard the sounds of industrial sewing machines? Did the idea of mowing a lawn turn him "off" or "on"?

The purpose of the Self Expression Learning Follow-Up OCCUPAC is to provide some opportunities for the child to reveal how he perceives the world of work after having interacted with the materials in the K-3 OCCUPACS.

The developers of the Self Expression Learning Follow-Up OCCUPAC have deliberately omitted any suggestion of what to do with the materials contained in the SELF OCCUPAC. Let the children use the puppets. Let the children decide what they would like to do with the brown paper bags. Let the children supply the details for the abstract materials found in this OCCUPAC.

APPENDIX B

INSTRUCTIONAL GUIDE

FOR

4-6 OCCUPACS

prepared by

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FOREWORD

The question of whether or not occupational information has a place in the elementary school is no longer a debatable one. Child development data reveals that aptitudes, attitudes, values, interests, and needs--vital elements involved in the eventual choice of an occupation--are influenced by the types of learning experiences provided for the child.

Specific suggestions for "what to do" when exposing children to occupational information are more debatable. Today's educator is looking for more than mere "how to do it" cookbook-type solutions. He knows the problems facing the schools today are too complex to be solved by magical panaceas, such as new teaching machines, or simple revisions of administrative or instructional procedures. Today's educators are looking for ideas solidly grounded in basic and applied scientific research--ideas which, while practical and capable of implementation are not simplistic--ideas of intelligent men and women, designed to be discussed and put into practice by other intelligent men and women.

At the onset of Phase I of the OCCUPAC Project, the OCCUPAC Project staff determined that the results of existing research on child development and career development theory should be thoroughly reviewed before work could begin on the development of occupational information materials. The staff

also determined that once this theory was applied to the development of occupational information materials, the products of their efforts should be pilot tested in a laboratory school setting and then field tested in a variety of public school settings.

The OCCUPAC project staff was aware that because of the diverseness of occupational information, ways had to be developed which would not be wholly dependent upon the occupational information knowledge possessed by the teacher or counselor. No matter how energetic, how resourceful, or how interested the classroom teacher or counselor might be in presenting occupational information, no one teacher or counselor can serve as an encyclopedia of information on occupations.

Thus, an approach emerged which for the most part uses an individual instruction approach. The heart of the individual instruction approach are the packages of occupational information materials known as OCCUPACS. The instructional guide will elaborate further on the OCCUPACS.

The project director is most grateful to Dr. Donald Gill and the entire instructional staff at Buzzard Laboratory School, Eastern Illinois University, Charleston, Illinois. Their spirit and cooperation throughout the development and pilot testing of the OCCUPACS were appreciated. The Decatur, Lombard, Marshall, and Martinsville, Illinois Public Schools served as field testing sites.

The cooperation of these school systems made possible the production of a product which was tested in a cross section of localities and environments.

Marla Peterson, Director
OCCUPAC Project

I. THE OCCUPACS

Definition and Overview

An OCCUPAC contains a set of objects, selected and organized with respect to basic activities within the expectations of a particular occupation. Occupation is defined as the chief means by which a person earns his living.

Each OCCUPAC is intended to be a self-contained, self-directing set of activities, with no implications in terms of "pre-requisites" or "required" topics. However, all the OCCUPACS are inter-related by means of four organizing principles, which may be stated as objectives for the materials:

1. To provide exposure to information and activities regarding specific occupations.
2. To provide opportunity for the development of certain generalizations (concepts) regarding occupations.
3. To encourage the growth of self-awareness with respect to talents, skills, knowledge, interests.
4. To integrate occupation generalizations and the several facets of self-awareness.

Each OCCUPAC includes implications for all of these principles, but, as a rule, Principles 1 and 2 are emphasized in sets intended for use with primary children; Principles 2 and 3 for intermediate children; and Principles 3 and 4 in the junior high. The OCCUPAC Model on page B-2 illustrates the organizing principles for the K-3, 4-6, and 7-9 grade levels.

■ OCCUPAC ■

OCCUPAC –
a concept devoted to the
INDIVIDUALIZING of K-9 OCCUPATIONAL INFORMATION
learning materials. . . . .

What is an OCCUPAC?

- An OCCUPAC is a package of multisensory materials that presents occupational information at a level which can comprehended by K-9 students.

- Among the multisensory materials contained in the OCCUPACS are: slides, tapes, the "sounds" of work, equipment and materials used in various occupations, decision-making simulation activities, puppets, and "props" of all kinds from the REAL WORLD OF WORK.

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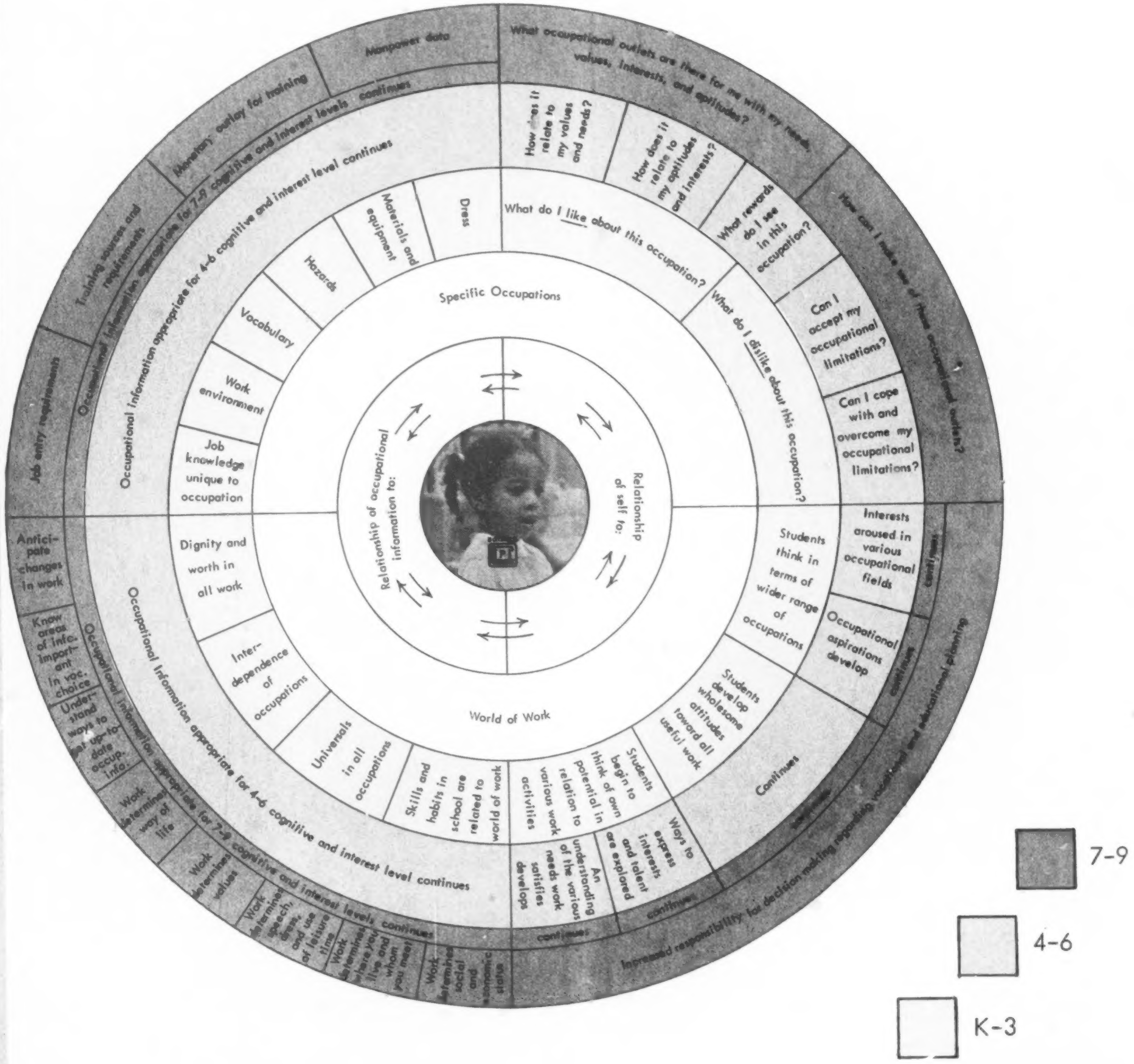
Relationship of self to:
Relationship of occupational information to:
Specific Occupations
World of Work
Dress
Materials and equipment
Hazards
Vocabulary
Work environment
Job knowledge unique to occupation
Dignity and worth in all work
Inter-dependence of occupations
Universals in all occupations
Skills and habits in school are related to world of work
Students begin to think of own potential in relation to various work activities
Students develop wholesome attitudes toward all useful work
Students think in terms of wider range of occupations
What do I like about this occupation?
What do I dislike about this occupation?
How does it relate to my values and needs?
How does it relate to my aptitudes and interests?
What rewards do I see in this occupation?
Can I accept my occupational limitations?
Can I cope with and overcome my occupational limitations?
Interests aroused in various occupational fields
Occupational aspirations develop
Continues
Ways to express interests and talent are explored
An understanding of the various needs work satisfies develops
continues
Occupational Information appropriate for 4-6 cognitive and interest level continues
Occupational Information appropriate for 7-9 cognitive and interest levels continues
Manpower data
Monetary outlay for training
Training sources and requirements
Job entry requirements
Anticipate changes in work
Know areas of info. important in voc. choice
Understand ways to get up-to-date occup. info.
Work determines way of life
Work determines values
Work determines speech, dress, and use of leisure time
Work determines where you live and whom you meet
Work determines social and economic status
What occupational outlets are there for me with my needs, values, interests, and aptitudes?
How can I make use of these occupational outlets?
Increased responsibility for decision making regarding vocational and educational planning
7-9
4-6
K-3

Supp[illegible]d by f[illegible]ds f[illegible] the D[illegible]sion
of Vocational and Technical
Education, State of Illinois

in cooperation with
The Center for Educational Studies,
Eastern Illinois University

Photographs taken at
Buzzard Laboratory School,
Eastern Illinois University—OCCUPAC
development and pilot testing site.

OCCUPAC

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The interaction of a student with the objects in an OCCUPAC is guided by taped and/or printed directions. In all cases, the directions are intended to be practically self-sustaining with as little need for live teacher[1] involvement as possible. This is not intended to limit the teacher's involvement in occupational information activities. Conversely, it is hoped that student and teacher interest in the OCCUPACS will generate other related classroom activities. Field trips, interviews, role playing, and all the other techniques which can be used for presenting occupational information should be used.

Children learn by seeing, talking, listening, and doing. Seeing, talking, and listening have generally been included in traditional approaches for presenting K-9 occupational information. However, doing--the very thing to which career information readily lends itself--has been neglected. Doing, then is one of the major components of the OCCUPACS. The OCCUPACS are based on a multi-media approach. Tapes, slides, "sounds" of work, simulated work activities, and "props" of all kinds from the REAL WORLD OF WORK have been assembled into the OCCUPACS.

Philosophy of Use

The OCCUPAC Program, as it is presently being developed, is intended to become a regular part of any school's curriculum. As the actual interaction with the materials assumes individual pupil differences in interests and abilities, so the administrative decisions regarding the placement and purposes of the OCCUPACS depends upon the local context in which the school personnel of a particular locality operate. The OCCUPACS have been specifically designed to allow for flexibility of placement within any school's curriculum. Thus, the OCCUPACS might be used as the central core for an occupational information program, as supplements for certain aspects of school subjects or certain aspects of the school guidance program, as "sideline" exploratory materials, or as bases for expansion into further study or activities. Physical placement of the OCCUPACS can be in a self-contained classroom, a media center, or a library.

---

[1] "Teacher," as used in this report, refers to anyone who is guiding an instructional activity. Thus librarians, counselors, media center directors, etc. are included in this comprehensive definition of "teacher".

It is not expected that all children in a given classroom will work with every OCCUPAC available. Subject to teacher control, those children who choose to work with an OCCUPAC will do so with no requirements for sequence (between OCCUPACS) or for having "done" all of the available OCCUPACS.

Phase I Evaluation Data

The one objective in terms of child behavior at this stage of the Program's development is whether or not the child is able to complete the activities he attempts.

The chief concern is whether or not the contents of a particular OCCUPAC can provide children with a ready opportunity for interaction with its materials. As different OCCUPACS are developed and tested, it is expected that adjustments in their contents may be necessary. Consequently, during this period of production, the developers were particularly concerned with the "behavior" of the OCCUPAC rather than any specific or substantial changes in the child. If most children "got through" the activities of an OCCUPAC with a minimum of confusion, then the objectives for the pilot testing and field testing stages will have been met.

However, evaluation of whether the types of behavior specified in the OCCUPAC model were occurring was a consideration of the overall evaluation plan. Teacher observations and student interviews were conducted. It was evident from post-test interviews that the world-of-work vocabulary of students who had used the OCCUPACS had increased.

The most striking improvement in child behavior was noted when children were asked the question, "How would you go about finding out what worker X (perhaps an electrician) does?" In pre-test interviews the average number of ways named by fourth through sixth grade students was 2.0. Six weeks later in post-test interviews this average increased to 3.8. Although this was an increase, no conclusions can be drawn from this data. Among other reasons, the increase could have been caused by maturation of the child. A research design, using control groups would provide more meaningful data. However, this type of research was not part of the Phase I contract for the OCCUPAC Project.

One thing can be said with certainty: Students like the OCCUPACS. Essays written about the OCCUPACS by students who had used the OCCUPACS reflected a very positive attitude toward the OCCUPACS. Field testing teachers also reported high student enthusiasm for OCCUPAC activities.

Although the intent of the OCCUPAC program is to produce the kinds of behaviors specified in the OCCUPAC model, the developers of the OCCUPACS realize that a child restructures the universe according to his own perceptions. The OCCUPACS cannot change previous experiences but they can expose children to new experiences.

The ultimate objective of a successful OCCUPAC Program is for the typical ninth grader to be able to relate intelligently his own capacities and interests to whatever occupation(s) which at that time would tend to offer a substantial basis for serious consideration as an eventual means for his earning a living.

II. THE 4-6 LEARNER AND THE OCCUPAC APPROACH

Through exposure to the OCCUPACS, the 4-6 learner will be presented with the following concepts which are related to his career development:

Occupational Information as It Relates to Specific Occupations

1. Each occupation has certain expectations related to dress which are associated with the occupations.
2. Each occupation has its own materials and equipment.
3. Each occupation has its unpleasant as well as its pleasant tasks and this is determined by the individual worker.
4. Each occupation attracts people with certain interests and needs.
5. Each occupation has its own vocabulary.
6. Each occupation has its own working conditions and environment.
7. Each occupation has job knowledge that is unique to that occupation.

Occupational Information as It Relates to the World of Work

8. There is dignity and worth in all useful work.
9. Occupations are dependent upon each other.
10. A pleasing personality is important in all occupations.
11. Both men and women can work in each occupation.
12. Skills and habits learned in school are related to the world of work.

The Self as It Relates to Specific Occupations

13. An individual's values and needs influence choice of a specific occupation.
14. An individual's aptitudes and interests influence choice of a specific occupation.

15. An individual expects certain rewards from an occupation.

16. An individual must learn to accept his occupational limitations as these limitations relate to specific occupations.

17. An individual must learn to cope with and overcome occupational limitations as these limitations relate to specific occupations.

The Self as It Relates to the World of Work

18. An individual's interests are aroused in various occupational fields.

19. An individual develops occupational aspirations.

20. An individual continues developing wholesome attitudes toward all useful work.

21. An individual explores ways to express interests and talents.

22. An individual develops an understanding of the various needs that work satisfies.

III. INSTRUCTIONS TO THE TEACHER FOR USE OF THE 4-6 OCCUPACS

Suggestions for Introducing the Audio-Visual Equipment

There are two basic pieces of audio-visual equipment which are used with the OCCUPACS: (1) the hand-operated slide viewer in which a stack of slides can be inserted and (2) the cassette tape recorder.

Each teacher will have his own preference for ways to introduce this equipment; however, the following suggestions might be helpful:

General Suggestions

1. Have a station in the room where the slide viewer and the tape recorder are within easy access of the students. A table surface with enough space for the OCCUPAC material is desirable.

2. Provide paper and pencils at the work station.

Suggestions for Introducing the Slide Viewer

1. Show the students how to open up the "drawers" on each side of the slide viewer.

2. Show the students how to pick up a stack of slides and place them in the viewer.

3. Emphasize that the stack of slides should be placed in the viewer so that Number 1 is on the bottom. The slides will be in correct position if the student is able to read the numbers.

4. Show the students how to remove the stack of slides from the viewer.

5. Show the students how to close up the viewer when they are finished.

6. Tell the students that the first lesson always involves the viewing of slides. The tape will allow them time to put the slides in the viewer. However, it would be a good idea to place the slides in the viewer before starting the tape for Lesson 1.

7. Let the students practice steps 1-6.

Suggestions for Introducing the Tape Recorder

1. Show the students how to insert the cassette in the recorder.

2. Show the students how to operate the "play," "stop," and "rewind" buttons.

3. Instruct the students that after they have listened to a tape they must rewind the tape so that tape is ready for the next person to use. Show the students how the rewind button should be held down until the tape stops.

4. Show the students how to remove the cassette from the recorder.

5. Let the students practice steps 1-4.

Placement of OCCUPACS in the Curriculum

1. OCCUPACS are self-instructional. Thus, after students have learned how to use the audio-visual equipment and after a work station has been provided, OCCUPACS can be easily and readily assimilated into the existing curriculum.

2. OCCUPACS should be left in the classroom as long as there is student demand for them. Some teachers may wish to have one OCCUPAC available at a time. Other teachers may wish to have several OCCUPACS available so students can choose the OCCUPAC they wish to explore.

3. There is no particular sequence in which the OCCUPACS should be used.

4. Within any one OCCUPAC, the lessons are generally constructed so that one lesson is not dependent upon another.

5. OCCUPACS are self-instructional. However, some of the OCCUPACS may have culminating activities which are group activities.

6. Tape scripts on each OCCUPAC and a brief overview of each OCCUPAC are provided. The overview will tell the teacher if a group activity is inherent in the OCCUPAC.

7. There is a difficulty hierarchy of OCCUPACS based on vocabulary and motor skills. Grade level designations have been avoided. Let the student use the OCCUPAC when he is ready. The following OCCUPACS are arranged in order from LEAST difficult to MOST difficult.

    a. Grain Elevator Manager
    b. Dental Assistant
    c. Carpenter
    d. Cook/Chef
    e. Sales Clerk

8. It is strongly recommended that after students have completed all activities in an OCCUPAC that the first activity (the slide-tape presentation) be repeated by the children.

IV

Contents of the OCCUPACS

APPLIED BIOLOGICAL AND AGRICULTURAL OCCUPATIONS

Grain Elevator Manager

Overview

There are four activities in the Grain Elevator Manager OCCUPAC. Activities 1, 2, & 4 are presented on cassette tapes. Printed directions are provided for Activity 3.

The first activity is a slide-tape presentation on the work of a grain elevator manager. The second activity explains how the grain elevator manager determines the prices that he will pay to farmers for their grain. The operation of a commodity exchange is presented and students are taken through the complete cycle of how grain gets from the producer to the consumer. In Activity 3 students assume the roles of grain elevator managers and farmers as they play a game called Commodity Exchange. Activity 4 explains how the job knowledge that a grain elevator manager possesses must include a knowledge of grains. Students are provided with an opportunity to identify grains. Activity 4 also includes a grain grinding activity.

After the student has completed Activities 2-4, he may wish to look at the slides and listen to Activity 1 tape again. All activities are intended for use on an individual instruction basis.

APPLIED BIOLOGICAL AND AGRICULTURAL OCCUPATIONS

Grain Elevator Manager

Activity 1

Materials and Equipment Needed

1. Tape recorder and earphones
2. Cassette tape # 1 from Grain Elevator Manager OCCUPAC
3. Slide viewer
4. Set of 12 slides from Grain Elevator Manager OCCUPAC

Vocabulary

1. auger
2. bin
3. chute
4. dryer
5. grinder
6. mixer
7. pellets
8. sacking

Tape Script

Hello! Today, you will be visiting a country grain elevator, and you will begin to learn some of the many things that go on there. Please check to see that the slides are in the proper order; then place them in the viewer, and insert the first slide.

Here, we see a local farmer harvesting some of his corn crop. (beep) That "beep" is a signal to insert the next slide. The large machine, called a combine, carries out a combination of what were previously several different operations. It cuts the stalks, separates the kernels from the rest of the plant, and deposits the kernels in the wagon being towed by the tractor. (beep) Here, you see the wagon being filled with the corn kernels. Some of this corn is the raw material which the grain elevator operator will buy from the farmer and the rest (beep) will be stored by the farmer in his own bin for his own use.

When he feels that the elevator is paying a good price, and he has enough grain to make the trip worthwhile, the farmer hauls his crop to the elevator. (beep) Here is a picture of the local country grain elevator. Trucks can drive right inside to deliver their loads. Before we go inside the elevator let's take a look at all the buildings to see what they look like. One of those buildings must be the office because I see Joe Grinder, the elevator manager, waving at me. He'll probably be able to tell us something about these buildings. Hello there, Joe.

Interviewee: Hello there. Let's go on inside the office for awhile and then in a few minutes we'll go over to the elevator and I'll show you around. I've got some trucks coming in this morning with some grain to be ground so you'll be able to see what we do around here.

Interviewer: Fine. I couldn't help but think as I was driving up to the elevator this morning that you need a lot of land to run a grain elevator operation.

Interviewee: Yes, if you want to own your own elevator it does take quite a bit of money to get started. We do need lots of land because we have to have space for the buildings that house the grinders, the mixers, the dryers, the pellet makers, and all the other equipment that is needed for grinding grain. I'll show you the grinders and the pellet makers in a few minutes. We also have to have space for the trucks to drive in and park while they are waiting to load and unload. Of course, we have to have space to store sacks of feed and grain.

Interviewer: Now, you just said that you store sacks of feed. Do you mean you sell sacks of feed that you buy from some company who specializes in preparing feed?

Interviewee: Yes, we do sell prepared feed that we buy from a manufacturer of feeds, but we also grind, mix, and bag some of our own feed. In addition, we do special requests for farmers. Some farmer may want us to grind some corn for him. Another farmer may want us to grind some oats for him. The ground oats and the ground corn are then fed to the hogs and cattle on their own farms.

Interviewer: When the farmers bring in grain do they go directly to the elevator, or do they come in the office first?

Interviewee: They usually come in to the office so I can write up the order. This is also where they pay me. I then give the order back to the farmer and he drives his truck on into the elevator. The farmer then hands the order to one of the workers over in the elevator. Let's walk on over to the elevator and I'll show you what the workers do with the order. (beep) This is the order board. You can see from the board that several farmers are waiting to have grain ground today.

Interviewer: It's kind of noisy in here isn't it? (sound of mixers and grinders)

Interviewee: Yes, we have to shout at each other when we talk in here because the noise is so loud.

Interviewer: I suppose the workers in here have to get used to the noise.

Interviewee: Most of these fellows have a farm background. They are used to working around noisy machinery so they really don't mind too much. I think the dust bothers them more than the noise. Some people cannot work around dust because it affects their health. One of the things I always ask anyone who comes to apply for a job is, "Are you able to work where there is dust?" I had to turn one fellow away last week because he had a medical history which included some problems with his nose and throat.

Interviewer: You said that the fellows who work here have had a farm background. Will you hire anyone who hasn't lived or worked on a farm?

Interviewee: All my employees have lived and worked on farms. Even the secretary in the office lives on a farm.

Interviewer: I don't see why your secretary should necessarily have a farm background.

Interviewee: If you would go over to the office and spend a morning listening to the conversations that take place between the farmers and the secretary, you would understand why I want my secretary to have a farm background. She understands the things they talk about. Yesterday, for example, a farmer came in and asked if he couldn't get his order processed quickly because he had to get back home to give erysipilas shots. She knew what he was talking about. Not every secretary would understand that erysipilas is a hog's disease.

Interviewer: Do you think all grain elevator managers would feel the way you do about hiring people with a farm background?

Interviewee: Let's put it this way. I think if they had two applicants for a secretarial position who both had equal secretarial skills but one grew up on a farm and one didn't, they would probably choose the one with the farm background.

Interviewer: I saw the order board. Now what happens as the order is processed. (beep)

Interviewee: This fellow is flipping a switch which will start one of the big grinders. You can't see the truck from where we are standing but the farmer has driven the truck inside the building. One of our workers is shoveling the corn off the truck into an auger. An auger is a machine which has a metal cylinder in the middle of it. There are metal wings on the cylinder. The cylinder turns around and around. The corn is shoveled right onto that auger. The action of the cylinder turning around and around carries the corn into the grinder. (beep) Remember, I told you sometimes we mix and blend two different kinds of grain together. However, this farmer didn't want the corn mixed with any other grain so the ground corn is coming out of the chute and will fall down underneath the floor where it is carried over to the machine which sacks the ground corn.

Interviewer: What would happen if the farmer wanted to blend two grains together?

Interviewee: We have big carts which we can put under a chute. We can catch a cart full of ground oats and a cart full of ground wheat and then we can put both carts full of grain in a mixing machine which blends them together.

Interviewer: When we were in the office you told me that you had a machine which would make feed in pellet form.

Interviewee: Yes, we have a pellet machine. We put the mixed and blended grains into this machine and the machine presses the grains into little pellets which can be fed to hogs and cattle. Let's walk over to the area where we sack the feed and grains. Before we take a look at our sacking operation, let's step back here and look at all the switch boxes and control boxes that the fellows have to know how to operate. (beep) Here's a close up of one of those control boxes. (beep)

Interviewer: Do your workers learn how to operate all these controls after they have been hired?

Interviewee: I have one man out here I call the head man. I don't call him a foreman. We use a little different terminology around here. My head man shows a new worker all the things he has to know about working here. Now, let's look at the sacking operation. Some elevators have sacking operations which are completely automated. Ours is somewhat automated. However, we do have to put the sack under the chute like this man is doing. (beep) There are machines which automatically place the sack under the chute. We have a scales which tells us the number of pounds of grain or feed that have gone into the sack. (beep) We have a button that we push when we want to start the grain going in the sack and when we want to stop the grain from going in the sack.

Interviewer: After the sack has the correct number of pounds of grain I suppose the next step is to close the top of the sack.

__Interviewee:__ Yes, we have an electric sewing machine which sews the top of the sack shut. (beep) We stack the filled bags on a cart like the one you see here. (beep) If we are sacking grain for a farmer who is waiting outside with his truck then we just cart the sacks on out to his truck. If we are sacking something that we want to store, we cart the sacks on back to our storage area.

__Interviewer:__ Well, you have certainly given me some insight as to what kind of work goes on in a grain elevator.

__Interviewee:__ There are other things that go on here too. I have not shown you the big corn drying facilities we have back in the next building. We do quite a bit of drying of shelled corn for farmers. Sometimes wet corn can catch on fire after it is placed in bins. If corn is dry before it is placed in corn bins it is not as likely to catch on fire or mold.

__Interviewer:__ I suppose that there is a lot more you have to know about the business end and the management end of your operation.

__Interviewee:__ Yes, I have to keep up to date on all the government rules and regulations which affect our operations. You know there are certain regulations which govern what we put in feed. When you run a business of your own, you also have to know all the rules about taxes which affect your business. Of course, I'm out to make a profit, so just like any other businessman I have to figure out what I am going to charge for our services and what I'm going to charge for the feed I sell.

Interviewer: Your last comment about making a profit--is that why you chose to own your own business?

Interviewee: Making a profit is one of the reasons that I chose this work but there are some other reasons too. You know when I first thought about going into business for myself I thought, "Oh boy, now I'll be the boss and I won't have to work such long hours." I found that in a small business like mine, that just isn't true. I've found that whenever we have some work to do after our regular working hours I am usually the one who stays on and does the extra work. I suppose, though, that the prospect of earning a lot of money was one of the overriding factors that made me want to own my own business. I've also had the pleasure of seeing my business grow over the years.

Interviewer: Mr. Grinder, once again, thank you for sharing with us some of the work that is involved in managing and working in a grain elevator. I'll be back again soon with another interview. (Pause) Now, please rewind the tape, stop the tape recorder, and place the tape back in its proper place.

APPLIED BIOLOGICAL AND AGRICULTURAL OCCUPATIONS

Grain Elevator Manager

Activity 2

Materials and Equipment Needed

1. Tape recorder and earphones
2. Cassette tape # 2 from Grain Elevator Manager OCCUPAC
3. "From Producer to Consumer" Poster

Vocabulary

1. commodity exchange
2. consumer
3. graded
4. processor
5. producer
6. quoted
7. representative
8. trader

Tape Script

Hello. On the first tape you learned how grain comes from the farm to the country elevator. The grain elevator manager is the person who buys grain from the farmer. The Manager is also the person who tells the farmer how much the farmer will be paid for the grain.

The price that the grain elevator is willing to pay is quoted at a certain price per bushel. Sometimes this price is an even amount -- like $1.50 per bushel -- and sometimes this amount is quoted in fractions of cents -- like $1.50 1/8 per bushel. How does the grain elevator manager know what price to pay the farmer? He listens to and reads reports on what big grain buyers are paying for grain. These reports are broadcast over radio and television and the business sections of the daily newspaper also carries the grain reports. These reports are given in a special way, which buyers and sellers of grain must be able to understand. For example, a radio announcer might say, "October #2 yellow corn based on today's trade 152 to 152 5/8." This means that corn was picked by the farmer in October. The corn was graded according to a set of government standards for quality and was graded as #2 corn. The corn varied in price from 152 per bushel to 152 5/8 per bushel. Notice that the announcer said 152 to 152 5/8 per bushel rather than $1.52 to $1.52 5/8. Listen to the following grain market report and you will see what I mean. (grain report)

You probably noticed that when you listened to the grain market report that the prices were given for many different kinds of grain. Some of the grains for which prices are given include: soybeans, corn, wheat, oats, and rye.

Remember, we said that these prices are determined by how much big buyers of grain are paying for grain. Big buyers sometimes are companies that make food products. For example, a company that makes breakfast cereal buys a huge amount of grain that is processed into breakfast food.

There would be a lot of time and effort involved if a breakfast cereal company had to go around to each country elevator and buy grain directly from each country elevator. For greater convenience, central locations have been established where the buying and selling of grain is done. These central locations for buying and selling grain are called commodity exchanges.

One of these commodity exchanges is located in Chicago. Not every buyer and seller goes to the commodity exchange. Imagine the confusion if every country grain elevator sent its manager and every company wishing to buy grain from the country elevator sent its representative to Chicago to buy grain! There would not be room for all of these people in the building where the commodity exchange is held.

Instead, certain people are designated to do the buying and selling on the commodity exchange. These people are known as traders. One trader may represent thousands of buyers and sellers. The prices paid by these traders are the prices that you heard when you listened to the grain market report. These prices change from day to day and from hour to hour. Weather conditions certainly affect the prices. If bad weather causes the corn crop to decrease in the number of bushels produced, there might be a scarcity of corn. The price for corn would then go up. Other things like railroad strikes, strikes by workers, and crop diseases can cause prices to go up and down.

Now, let's review how grain gets from the producer to the consumer. In the OCCUPAC, find a poster entitled "From Producer to Consumer". The producer is the farmer. He sells his grain to the country elevator. The country elevator, through a trader on the commodity exchange, sells its grain to large grain storage concerns, to processors like breakfast cereal companies, and to exporters. If a cereal company buys the grain, the grain may eventually reach you, the consumer, in the form of breakfast food.

You have learned that a grain elevator manager determines how much he will pay farmers for grain by following very closely the price on the commodity exchange. In Activity 3 you will have an opportunity to buy and sell grain. Five people are needed for the activity. One person will be the grain elevator manager and four people will be farmers. All five people needed for Activity 3 should listen to this tape before attempting Activity 3.

Please rewind the tape, stop the tape recorder, and place the tape back in its proper place.

APPLIED BIOLOGICAL AND AGRICULTURAL OCCUPATIONS

Grain Elevator Manager

Activity 3

To play Commodity Exchange, 5 players are needed. Before the game can be played, however, all players should have listened to Activities 1 and 2.

In order to play the game, the following materials are needed from the OCCUPAC:

Commodity board
Grain Price cards
Grain Price sheet
Grain Receipt form
Price Per Bushel sheet
Sales cards
Spinner

One player will be the grain elevator manager. The other four players will be farmers who want to sell their grain. The game can be played more than once by rotating positions so that each player has a chance to be the grain elevator manager.

The four farmers should each have 10 sales cards. Each farmer should be assigned one color of sales cards. For instance, one farmer may have all yellow sales cards. With each sales card, the farmer can sell 500 bushels of grain. The farmer may sell as many bushels as he wishes on any one day. For example, a farmer may wish to use all 10 of his sales cards on Monday. However, if he did use all of his sales cards on Monday, then he would not be able to sell corn on any of the other days.

The grain elevator manager should have the 10 different grain price sheets, the grain price cards, and the commodity board, the spinner, and the Price Per Bushel Sheet.

To start the game, the grain elevator manager spins the spinner. It is important that the grain elevator manager does not let the other players see at what number the spinner has stopped. The number at which the spinner has stopped is the number of the grain price sheet the grain elevator manager will use throughout the game. For example, if the spinner stopped at number 4, the grain elevator manager will use the grain price sheet labeled number 4.

To continue the game, the grain elevator manager reads the grain price for Monday. After reading the price, he locates a corresponding price card and places the price card on the commodity board where it is marked price card. Then the farmers decide how many bushels of grain they want to sell at this price. When they decide, they should place their sales card or cards in Monday's column next to their color. Don't forget that the farmer never knows for sure what the grain price will be for the following days. Make careful decisions.

Next, the grain elevator manager reads the grain prices for Tuesday. Again, he locates the corresponding price card and places it on the commodity board. And the farmers place their sales card or cards in the proper column. Place the sales card next to the sales card for Monday. Follow this same procedure throughout the next 3 days.

Each day a farmer sells bushels of grain the grain elevator manager gives each farmer a receipt. On this receipt the grain elevator manager writes down the price that the farmer will receive for his bushels of grain he is selling. On the receipt, the grain elevator manager should write "Paid to" (the farmer's name), "Received from" (the grain elevator manager's name), and the price.

To quickly determine the price the grain elevator manager will pay the farmer, the manager should look at the Price Per Bushel Sheet. To find the price, the manager first locates the price of the day which can be found in the left column. Next, he counts the number of sales cards the farmer has placed on the commodity board (each card represents 500 bushels), and then he finds the number of sales cards that the farmer has put on the commodity board. The number of sales cards can be found at the top of the Price Per Bushel Sheet. To find the price paid to the farmer, the elevator manager should move his finger down the column until his finger is in line with the price of the day. The price his finger has stopped on is the price he will write on the receipt. Look at the price per bushel chart. If the price of the day was 1.51 and a farmer placed 4 sales cards on the commodity board, what price would the elevator manager pay the farmer? Bring your finger down column 4, until it is equal with 1.51. The price that the grain elevator manager would write on the receipt is $3,020.00.

After the farmers have received 5 receipts, one for Monday-Friday, they will total the prices found on each receipt. The total can be found by adding the 5 prices. The farmer with the highest total is the winner.

PRICE PER BUSHEL SHEET

Price of the day	NUMBER OF SALES CARDS									
	1	2	3	4	5	6	7	8	9	10
1.45	$725.00	$1,450.00	$2,175.00	$2,900.00	$3,625.00	$4,350.00	$5,075.00	$5,800.00	$6,525.00	$7,250.00
1.46	$730.00	$1,460.00	$2,190.00	$2,920.00	$3,650.00	$4,380.00	$5,110.00	$5,840.00	$6,570.00	$7,300.00
1.47	$735.00	$1,470.00	$2,205.00	$2,940.00	$3,675.00	$4,410.00	$5,145.00	$5,880.00	$6,615.00	$7,350.00
1.48	$740.00	$1,480.00	$2,220.00	$2,960.00	$3,700.00	$4,440.00	$5,180.00	$5,920.00	$6,660.00	$7,400.00
1.49	$745.00	$1,490.00	$2,235.00	$2,980.00	$3,725.00	$4,470.00	$5,215.00	$5,960.00	$6,705.00	$7,450.00
1.50	$750.00	$1,500.00	$2,250.00	$3,000.00	$3,750.00	$4,500.00	$5,250.00	$6,000.00	$6,750.00	$7,500.00
1.51	$755.00	$1,510.00	$2,265.00	$3,020.00	$3,775.00	$4,530.00	$5,285.00	$6,040.00	$6,795.00	$7,550.00
1.52	$760.00	$1,520.00	$2,280.00	$3,040.00	$3,800.00	$4,560.00	$5,320.00	$6,080.00	$6,840.00	$7,600.00
1.53	$765.00	$1,530.00	$2,295.00	$3,060.00	$3,825.00	$4,590.00	$5,355.00	$6,120.00	$6,885.00	$7,650.00
1.54	$770.00	$1,540.00	$2,310.00	$3,080.00	$3,850.00	$4,620.00	$5,390.00	$6,160.00	$6,930.00	$7,700.00
1.55	$775.00	$1,550.00	$2,325.00	$3,100.00	$3,875.00	$4,650.00	$5,425.00	$6,200.00	$6,975.00	$7,750.00

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APPLIED BIOLOGICAL AND AGRICULTURAL OCCUPATIONS

Grain Elevator Manager

Activity 4

Materials and Equipment Needed

1. Tape recorder and earphones
2. Cassette tape # 4 from Grain Elevator Manager OCCUPAC
3. Grain board
4. Mortar
5. Pestle

Vocabulary

1. barley
2. bran
3. commercial mill
4. corn
5. grinding
6. husks
7. kernels
8. milling
9. mortar
10. oats
11. pellet
12. pestle
13. processed
14. raw material
15. rye
16. wheat

Tape Script

Hello! As you know, the raw materials that the people at a grain elevator work with are the grains that farmers bring to the elevator. Employees of a grain elevator need to know how to identify different grains, and what processes are required to change them into usable forms.

Look in the OCCUPAC for the yellow board which has five glass jars attached to it. Three of these jars contain grains that have not been processed (pause) the corn, the wheat, and the oats. The other two jars contain processed grains. There is a jar where a combination of oats, wheat, and corn have been processed into pellet form; and, there is a jar with the loose form of ground grains.

One of man's oldest forms of food is the flour which he makes by grinding kernels of different kinds of grain. Today, you will imitate one of the earliest methods of such grinding. Look in the OCCUPAC, and remove the objects identified by the letters "M" and "P"; they look something like a heavy cup and a short, thick stick. The letters stand for "mortar" and "pestle", which are similar to objects still used by some pharmacists to prepare and mix medicines. Open the plastic container of wheat kernels and shake about a dozen grains into the mortar. Then, using a twisting motion, press down heavily upon the wheat with the pestle. Keep this grinding going until all the kernels have been crushed. (Turn off the recorder while you grind.)

The process of changing raw grain to flour is called "milling". The bits of brown husks in your mortar are bran, which is used for both human and animal food. The white substance is, of course, the wheat flour. Most milling today is done in enormous quantities at large mills, which receive their grain from a wide area. You have already seen that commercial mills are among the local grain elevator's most important customers.

Can you picture in your mind the many, many farms that produce various kinds of grains and the many, many products that are eventually made from the wheat, corn, oats, barley, rye and so on? The grain elevator is an extremely important step in the movement of grain from the farmers' fields to your own dinner table. Look up "Grain Elevator", or "Grain", or any of the names of certain kinds of grains in your encyclopedia, and you can get a much better idea of how the grain elevator operator makes his important contribution to his local community and to the rest of the world.

Please rewind the tape, stop the tape recorder, and place the tape back in its proper place.

BUSINESS, MARKETING, AND MANAGEMENT OCCUPATIONS

Retail Salesmen and Saleswomen

Overview

There are five activities in the Retail Salesmen and Saleswomen OCCUPAC. The first activity is a slide-tape presentation on the work of retail sales clerks. In Activity 2 the student learns how to set up a cash register drawer. Activities 1 and 2 are both guided by instructions on cassette tapes. Activity 3 is a reading activity which provides background information on making change. Activity 4 is guided by printed directions and involves the student in writing sales slips. Activity 5 is also guided by taped directions and integrates Activities 2-4. Students set up a cash drawer, write sales slips, and make change.

After the student has completed Activities 2-5, he may wish to look at the slides and listen to the Activity 1 tape again. All activities are intended for use on an individual instruction basis.

BUSINESS, MARKETING, AND MANAGEMENT OCCUPATIONS

Retail Salesmen and Saleswomen

Activity 1

Materials and Equipment Needed

1. Tape recorder and earphones
2. Cassette Tape # 1 from Retail Salesmen and Saleswomen OCCUPAC
3. Slide viewer
4. Set of 11 slides from Retail Salesmen and Saleswomen OCCUPAC

Vocabulary

1. distributive education
2. manufacturers' representative
3. manufacturers' salesmen
4. merchandise
5. on-the-job training
6. product knowledge
7. retail store
8. window display

Tape Script

Please check to see that the slides are in the proper order and then place them in the viewer. Be ready to insert a new slide each time you hear this sound. (beep) Insert the first slide.

Interviewer: Here we are inside an attractive store and I see a young lady heading my way. Pardon me, miss, would you please introduce yourself.

Interviewee: I'm Sandy Sellers and I work here in this store.

Interviewer: What do you do here?

Interviewee: Well, I'm a sales clerk, but I do a little bit of everything.

Interviewer: What do you mean--a little bit of everything?

Interviewee: Let's take a look at what some of the other sales clerks are doing and maybe you will get an idea of the many kinds of things I do. (Beep) Much of my time is spent showing merchandise to customers. I have to help create a desire in the customer to buy our merchandise. Often I suggest styles and colors that I think the customer might like. Some people just like to browse. I have to be able to tell when a customer really wants my help or when he would like to be left alone.

Interviewer: It seems to me that you really need to spend a great deal of time "psyching out the customer."

Interviewee: Yes, you've probably said it correctly. I do have to try to understand the buying intentions of each person who comes in the store.

(beep)

Interviewer: I see that the sales clerk is helping a little girl try on a coat.

Interviewee: Part of my work does consist of helping customers try on clothing. I help take clothing to the dressing rooms, and after the customer has finished trying on the clothing, I check the dressing rooms and make sure all the clothes have been replaced on the proper hangers.

Interviewer: That would seem to be a responsibility that is somewhat unique to your job because you work in a clothing store.

Interviewee: We could not really say unique, because all salesmen who work in retail stores--by retail stores I mean stores that sell any kind of merchandise to the general public--have to make sure that the merchandise is kept in neat order. Salesmen who work in hardware stores are constantly checking to see if the merchandise is in the correct place. My boss told me when I came here that if I didn't have a customer to help, I could always straighten up the merchandise. He said, "Miss Sellers, keep busy. It's not good for the store when people come in and see clerks just standing around." (beep) This counter of shirts always needs to be put in neat order.

Interviewer: I can understand your boss's point of view. It always makes me wonder just how much business a store does when I walk in and see clerks just standing around.

Interviewee: It's really amazing how much you can find to do. Sometimes, when I am not actually helping a customer, I may read the labels on the merchandise. This can help me to know a great deal about all these clothes, and I can answer customers' questions about the merchandise much more intelligently. A frequent question they ask is "Can this garment be washed or does it have to be dry cleaned?" Since this is a store that sells children's clothing, I try to learn everything I can about why these clothes would be good for children. For example, if a pair of boy's trousers has extra material on the cuff that can be used to lengthen the trousers as the child grows, I try to point this out to the customer. Sales clerks just have to know all they can about the products they are selling. "Product knowledge" we call it.

Interviewer: You know, we sometimes have door-to-door salesmen come to our house. Some of these people really know their products. We had a vacuum cleaner salesman come to our house last week. He really knew a lot about the vacuum cleaners he was selling.

Interviewee: That's true. You have to give door-to-door salesmen a lot of credit for really knowing the products they are selling. Insurance salesmen and real estate salesmen--the people who sell houses and other property--also have to know a great deal about the products they are selling.

Interviewer: There certainly are a lot of different kinds of salesmen.

Interviewee: Yes, there are. There are some we haven't mentioned. The manufacturers' salesmen or sometimes they are called manufacturers' representatives are another type of salesman. Some manufacturers' salesmen are really quite specialized. They sell things like factory machinery, metals, chemicals, etc. They sell their manufacturer's products to other businesses. Some of these salesmen have to have so much knowledge about their products that a college degree is required. Here, in our store, a college degree isn't required.

Interviewer: How did you learn all the things you have to do here?

Interviewee: I learned on the job. The store manager helped me and other sales clerks also showed me what to do. Our high school had a distributive education program, but I didn't take any of the distributive education courses. Now, I wish I had taken some of the courses because I would have learned many things which would have helped me in my work.

Interviewer: What do you mean? You seem to be getting along all right.

Interviewee: Yes, I'm doing all right, but the distributive education courses would have helped me because I might have been promoted faster if I had had a better background. (beep) You see that girl ringing up a sale? She was just promoted last week to a supervisor. She had a real good background before she came to the store. In her distributive education courses she had learned how to do window displays, how to close a sale, how to take inventory--she knew all of these things before she came here.

Interviewer: So would you advise taking distributive education courses for someone interested in a sales occupation?

Interviewee: Well, I've seen how it has helped this girl. I should add that retail selling is one of the few remaining fields in which an employee with initiative and ability may be selected for promotion regardless of his educational background. If I sell a lot of merchandise, I can still be promoted. This other girl was much better prepared so she started faster, but I can catch up with her. Many retail stores offer good opportunities for persons without a college degree to advance to executive positions. Hard work is what pays off in this business. (beep)

Interviewer: I notice that the clerk is putting together a box. She must be going to put the merchandise in the box. (beep)

Interviewee: Yes, she sold the little girl a coat and she has folded it nicely so it will not get too wrinkled. She probably will not gift wrap this box, but sometimes we are asked to gift wrap packages. (beep)

Interviewer: I suppose you may do quite a bit of gift wrapping in a children's store.

Interviewee: You're right. We sell lots of baby gifts and many people ask us to wrap them. While we're talking about babies, I might mention that part of my work involves watching the local newspapers for birth announcements. Each morning I look in the newspapers to see if there were any new babies born. Our store sends a free gift to all new babies. This is our way of helping advertise our products. There's one other thing I look for in the papers also. I always look to see if our store is advertising any of our products at special sale prices. If we have an ad in the paper, I clip the ad out and put it near the cash register. This helps me know just what merchandise is on sale.

(beep)

Interviewer: You mentioned before that the girl who had distributive education courses knew how to make good window displays. Is this really very important?

Interviewee: You'd be surprised how many people come in and ask for something they see in the window. I'm getting better at making window displays, but I sure wish I had had some background in design and display. It would have helped me. (beep)

Sometimes one of the clerks is exceptionally good at making window displays. (beep) This man is very good so he usually does all the holiday window displays.

Interviewer: Is that a clerk back there dusting shelves?

Interviewee: Yes, that's another thing we can do when we don't have a customer. Sometimes you will see us putting tags on merchandise or unpacking merchandise. These are all things that we do while we are working.

Interviewer: What would you say is the most important ability a sales clerk must possess?

Interviewee: A sales clerk certainly must like to work with people. It is also important to be able to express oneself clearly.

Interviewer: Do you ever get any customers who are really nasty to you?

Interviewee: Sure I do. Most generally they are angry about something which is related to the merchandise. Customers come in and demand their money back after they have had the merchandise for a couple of months. Some customers buy a garment and find out a week later that the garment they bought has been marked down in price. Then they come in and want us to refund them some money because they feel they should have paid the sale price for the garment.

Interviewer: Are there any other things about your job which you might say are not particularly enjoyable?

Interviewee: The first week I was here I didn't think I would come back to work the next week. My feet just killed me. I had never thought how much time a sales clerk spends standing up rather than sitting down. You have to get used to standing up for long periods of time. (beep) Some of the lifting and the carrying of merchandise is also very tiring. When the trucks come to deliver merchandise, we have to stand at the bottom of the loading chute and catch the boxes and packages as they come down the chute.

Interviewer: Do these things sometimes make you wish you were not a sales clerk?

Interviewee: Every job has its drawbacks. I like my work because I am busy. We really hustle around here. I am a very competitive sort of person so I really enjoy a job where there is competition involved. Each week my goal is to have more total sales than I had the week before. I couldn't be happy behind a desk. I've got to be out mixing and mingling with people.

Interviewer: If you stop to think about it, you really reveal quite a bit about yourself by the occupation that you choose to do.

Interviewee: I had never thought about it that way, but it seems like that might be true.

Interviewer: Thank you for all the time you've taken to talk with us. You probably could have sold three dresses and a dozen pairs of socks while you were talking with me, so I really do appreciate your taking the time to talk with me. Good-bye for now and I'll be back soon with another interview. Please rewind the tape, stop the tape recorder, and place the tape back in its proper place.

BUSINESS, MARKETING, AND MANAGEMENT OCCUPATIONS

Retail Salesmen and Saleswomen

Activity 2

Materials and Equipment Needed

1. Tape recorder
2. Cassette tape # 2 from Retail Salesmen and Saleswomen OCCUPAC
3. Cash box
4. Money
5. Pencil
6. Paper

Vocabulary

1. carbon copy
2. cash register
3. change fund
4. sales slip
5. sales tax schedule card
6. specialty store
7. till

Tape Script

Hello! Welcome to your first day of work as a sales clerk at the Third Hand Clothing Store. As I told you when I interviewed you, we are a specialty store. We specialize in handling clothing that appeals to young people. You'll find that many of your customers will be junior high school, senior high school, and college students.

You'll learn to know more and more about the merchandise after you have been with us for awhile. However, before you can start selling, there are some things that we have to teach all our new employees. Today I am going to help you set up a cash register drawer. Later on you will learn how to write up a sales slip, how to use a sales tax schedule card, and the proper way to make change when a customer gives you money for his purchase.

Part of my work is to help our new employees learn the things I have just named. It is important that all of us in the store follow the same procedures. Some new employees who have worked in other stores sometimes need to adjust to the way we do things. For example, last week I had a new employee who kept setting up the cash register drawer the same way she had done in her previous job. Other employees of our store who used the cash register kept getting the wrong coins and bills because they were used to the way we set up cash register drawers here in our store.

The first thing I am going to show you today is how to set up a cash register drawer. Please get the cash drawer box from the package of materials. Open up the box. The inside of this cash box looks just like the inside of our cash register drawers. The tray with the several compartments is called the till.

Lift up the till and get the green canvas money bag, the piece of cardboard, and the change fund forms. Each morning when you arrive, you will go up to the cashier on the fifth floor and pick up your money bag. The money in this bag is the change fund for the cash register you will use. Look in the bottom of your cash box. You should see a card that has a list of the bills and coins that you should have in your money bag. A card like this is in each cash register drawer.

Every morning you should count the money in the bag to see if the cashier has given you the right amount. Use the card in the bottom of the cash drawer to see if the amount is correct. If the amount is not correct, make a note of it and place the note under the tray in the cash drawer. Report it to the cashier by telephone as soon as you discover the error. Now, I want you to count the money as I tell you how to do it.

Reach in the cash drawer and pull the till forward. Remember--the till is the tray with the compartments. Now place the piece of stiff cardboard over the back of the till so that it leaves the five compartments in front uncovered. Pennies are to be kept in the compartment farthest to the right. Nickels go in the compartment next to the pennies. The middle compartment is for dimes, and the next one to the left is for quarters. Since we do not use half dollars for change any more, the empty compartment farthest to the left is available for small supplies, such as paper clips. The small compartment directly behind this empty one is also used for holding small supplies.

Now, empty the change bag carefully onto the cardboard. Count the pennies first, sliding them off the cardboard into the far right compartments. Stop the tape while you are counting, then turn it on again for further instructions. You should have counted ten pennies. Write this number of pennies on the change fund form.

Now count the nickels, sliding them off into the compartment beside the pennies. Again, stop the tape while you are counting. You should have counted 8 nickels. Write the number of nickels on the change fund form.

Now count the dimes, sliding them off the cardboard into the compartment beside the nickels. Stop the tape while you are counting. You should have counted 8 dimes. Write the number of dimes on the change fund form.

Now count the quarters, sliding them off the cardboard into the compartment beside the dimes. Stop the tape while you are counting. You should have counted 4 quarters. Write the number of quarters on the change fund form.

I think you can easily tell which compartment is used for the bills. Some stores have separate compartments for the $1 bills, the $5 bills, etc. We use one compartment for all of our bills.

I will now tell you how to count the bills. First, sort the bills so that all the 20's are together, all the

10's are together, etc. Put the 20's on the bottom, the 10's on top of the 20's, the 5's on top of the 10's, and the one's on top of the 5's. In other words, put the largest bills on the bottom and the smallest bills on top. In addition, stack all the bills uniformly so that the whiter side is on top. If you have stacked the bills correctly, the amounts, in figures, should be printed in the upper left hand corner, the upper right hand corner, and toward the middle of the right hand side of the bill. Stop the recorder while you sort. Now count the bills. Check with the card in the bottom of the cash drawer to see if the amounts were correct. Now write the number of bills of each denomination on the change fund form.

You should now have the number of coins and bills recorded on the change fund form. Next, you will need to multiply the number of coins by the amount of the coin being multiplied. Start with the pennies. There are 10 pennies so multiply 10 pennies times 1 cent. (Pause) Then do the nickels. There are 8 nickels so multiply 8 nickels times 5 cents. (Pause) Continue doing this with the rest of the coins and bills. Then total up the amount to see how much you have in your cash drawer. Turn off the tape recorder while you are working. If you have counted, multiplied, and added correctly you should have $522.30. Put the change fund form underneath the cash tray.

The cash drawer is all set up so now you can practice making change. Once you learn how to make change it will seem very easy for you. However, making change does confuse some of our new employees. I try to give them a little practice before they start because errors in making change can cost the store a lot of money. I have also prepared a special little information sheet on making change. If you look in the package you will find a folder that says "Making Change." Please read this material and then, using the money in the cash drawer, practice making change. Perhaps you can find someone in your room who will play the role of the customer and you can be the sales clerk. When you have finished practicing making change, please place all the money from the till in the change bag. Place the bag under the till.

On tape # 3 I am going to let you go to work. However, before you can go to work you also have to know how to write up a sales slip. In the package of materials you will find a folder labeled "Sales Slips." Please study the material in this folder before you listen to tape #3.

Now, rewind this tape and place it in its proper place in the package of materials. Turn off the recorder.

BUSINESS, MARKETING, AND MANAGEMENT OCCUPATIONS

Retail Salesmen and Saleswomen

Activity 3

"Making Change"

Mention total of sale and amount received from customer.

When the customer has made a choice, accept the money for the purchase, keeping it in plain view. Call back to the customer both the total of the sale and the amount received. For example, if the price of the merchandise is $2.44, and the customer gives you a $5 bill, hold the bill so that the customer can see it easily and say, "That is $2.44 out of $5." This will help you remember both amounts and will call the customer's attention to the amount of money he or she gave you, so there will be no misunderstanding.

Place the customer's money on the register change plate.

Stand squarely in front of the cash register or cash box. Place the customer's money on the change plate of the register. The change plate is the ledge just above the cash drawer. While you are practicing with the cash box, place the customer's money on the table beside the cash box. This leaves both hands free to operate the cash register and to make change. It also permits the customer to see the money and prevents you from forgetting the amount the customer gave you. Do not put the customer's money in the till until after the change has been counted out to the customer.

Count change carefully.

Follow this rule for the easiest, quickest and most accurate method of counting change: Start counting with the amount of the sale shown on the sales-slip; stop counting when the sum is the same as the amount the customer gave you. If you follow this rule, you need not add nor subtract; you merely count money. For example: If the purchase is for $2.44 out of $5, start counting with the $2.44. Count $2.44, $2.45, $2.50, $3, $4, $5 " as you take the coins and bills from the till. You started counting with the amount of the sale and stopped counting with the amount the customer gave you. Take the customer's money and place it in the proper compartment or compartments of the cash drawer. Close the drawer immediately.

Deliver change, sales-slip, and merchandise to customer.

Place the sales-slip in the package with the merchandise, if this is practical. Count the change back to the customer, coin by coin and bill by bill. Start with the amount of the sale and stop with the amount the customer gave you. When you have done this, the change will have been counted three times: twice by you and once by the customer as he received it from you. Place the change in the customer's hand, if possible; do not just throw it on the counter.

In giving change to elderly people, count the money slowly, Be patient if the person has difficulty checking the amount.

Change being given to a small child should be placed carefully in his purse, if he has one. If the child has no purse, seal the change in an envelope to prevent its loss. We have small change envelopes for this purpose, a service appreciated by mothers.

In counting money be sure to mention each dollar denomination. This will prevent skipping a dollar. For example, see how easy it would be to give a dollar too much change by counting it this way: "That was $2.44 out of $5--44, 45, 50, 2, 3, 4, 5." The loss would be avoided if the change were counted correctly: "That was $2.44 out of $5--TWO 44, TWO 45, TWO 50, THREE dollars, FOUR dollars, FIVE dollars."

A customer, whose purchase totals a few cents over an even amount, may give you the odd pennies in addition to the money for which you must make change. These "odd-cent" transactions should be handled in this way:

Suppose the customer buys an item costing $1.26 and gives you two $1 bills and one penny in payment.

Cancel out the odd penny when counting the change from the cash drawer: "$1.25 out of $2--$1.25 and 25 is $1.50 and 50 is $2." Then when counting the change back to the customer, follow the usual rule, starting with the amount of the sale and stopping with the amount the customer gave you: "$1.26 out of $2.01--$1.26 and 25 is $1.51, and 50 is $2.01."

As another example, suppose the customer buys an item costing $2.13 and hands you a $5 bill, a dime, and three pennies. Cancel out the 13¢ when counting change from the cash drawer: "$2 out of $5--$2, $3, $4, and $5." Then, when counting the change back to the customer, count: "$2.13 out of $5.13--$2.13 and $1 is $3.13, $1 is $4.13, and $1 is $5.13."

Thank the customer.

No sale is satisfactorily completed until the customer is thanked and the sincerity of your thanks should be reflected both in words and in the way those words are said. When you say, "Thank you," be sure the customer knows that you really mean it. Make the customer want to return to your store--and to you.

BUSINESS, MARKETING, AND MANAGEMENT OCCUPATIONS

Retail Salesmen and Saleswomen

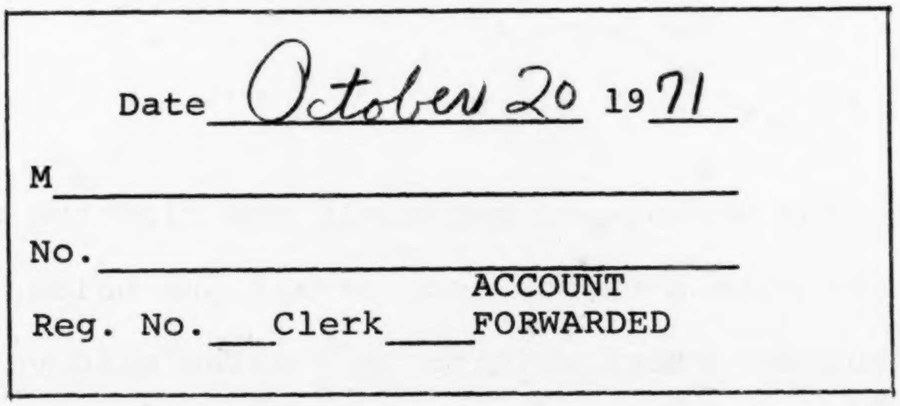
Activity 4

"Sales Slips"

Look in the package of materials and find the pad of sales slips. We make a carbon copy of all our sales. Therefore, before you can start writing up a sales slip you will need to place a sheet of carbon paper between the black printed page and the red printed page of the sales slip. The carbon paper has been provided for you near the back of the pad of sales slips. Unfold the piece of carbon paper, but do not tear it off. Unfold it and place it between the top black printed page and the red printed page directly beneath. The sheet of carbon paper is long enough so that it can reach from the bottom of the pad to the top of the pad.

A ballpoint pen works best for writing up the sales slip. You need to press hard so that the carbon copy can be easily read. A pencil sometimes tears the paper if you press hard. Fill in today's date where it says "Date" on the sales slip. Write the month, the day, and the year.

It is important that the date is correct because sometimes customers want to return merchandise and we have to know the date on which the merchandise was sold.



Date October 20 1971

M____________________

No.____________________

Reg. No.___Clerk____ACCOUNT FORWARDED

You should see a line that starts out with a capital "M". This "M" is for Mr., Mrs., or Miss--whatever the customer's title might be. If the customer has a charge plate, you should ask him for his plate. The plate has his name and address on it. You insert the plate in our charge plate printer along with the sales slip. When you pull down on the charge plate printer's handle, the customer's name and address will automatically be printed on the line that starts out with an "M" and on the line that starts out with No. This stands for number and his street number will be printed on this line.

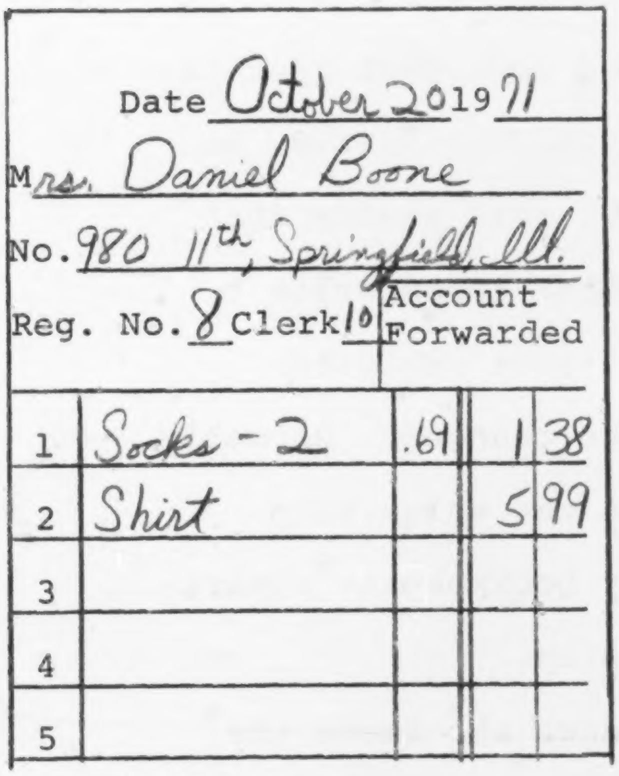
However, when you have a customer who wishes to pay in cash, you have to fill out the customer's name and address. Let's pretend you are the customer, and write your name and address on these two lines. Look at the example shown on page B-60. It will help you.

Date October 20 1971
Mrs. Daniel Boone
No. 980 11th, Springfield Illinois
Reg. No. 8 Clerk 10 Account Forwarded

Turn off the tape recorder while you are working.

Now, you will need to fill in your cash register number. You will be working from cash register 8, so write an "8" where it says Reg. No. This stands for register number. You are clerk number 10 so write a "10" after the word clerk. Neither your register number nor your clerk number will be changed. Normally, you will not work with the space on the sales slip that says "Account Forwarded." Our bookkeeping department uses this space on the sales slip.

Now you are ready to write down the items the customer wishes to purchase. Since this sales slip is written out for you, let's assume you are purchasing 2 pairs of socks at $.69 each and 1 shirt at $5.99. On line 1 write the word "Socks". Then right behind the word "Socks" write the number of pairs. In this case it was 2. Now write the price that the socks cost per pair on line 1 in the column which is just in front of the double lines. Since you are purchasing 2 pairs of socks at $.69 per pair, you will need to multiply 2 times $.69. You can do this on a separate piece of scratch paper or you can figure it out without paper--whichever is easier for you. When you multiplied you should have gotten a figure of $1.38. Write $1.38 on line 1 in the two columns that are to the right of the double lines. Look at the example to see where and how the $1.38 should be written. On line 2, write the word shirt. Since you are purchasing only one shirt just write the amount of the shirt in the two right hand columns. The line between the columns serves as the decimal point between the dollars and cents in the amount recorded.



Date October 20 19 71

Mrs. Daniel Boone

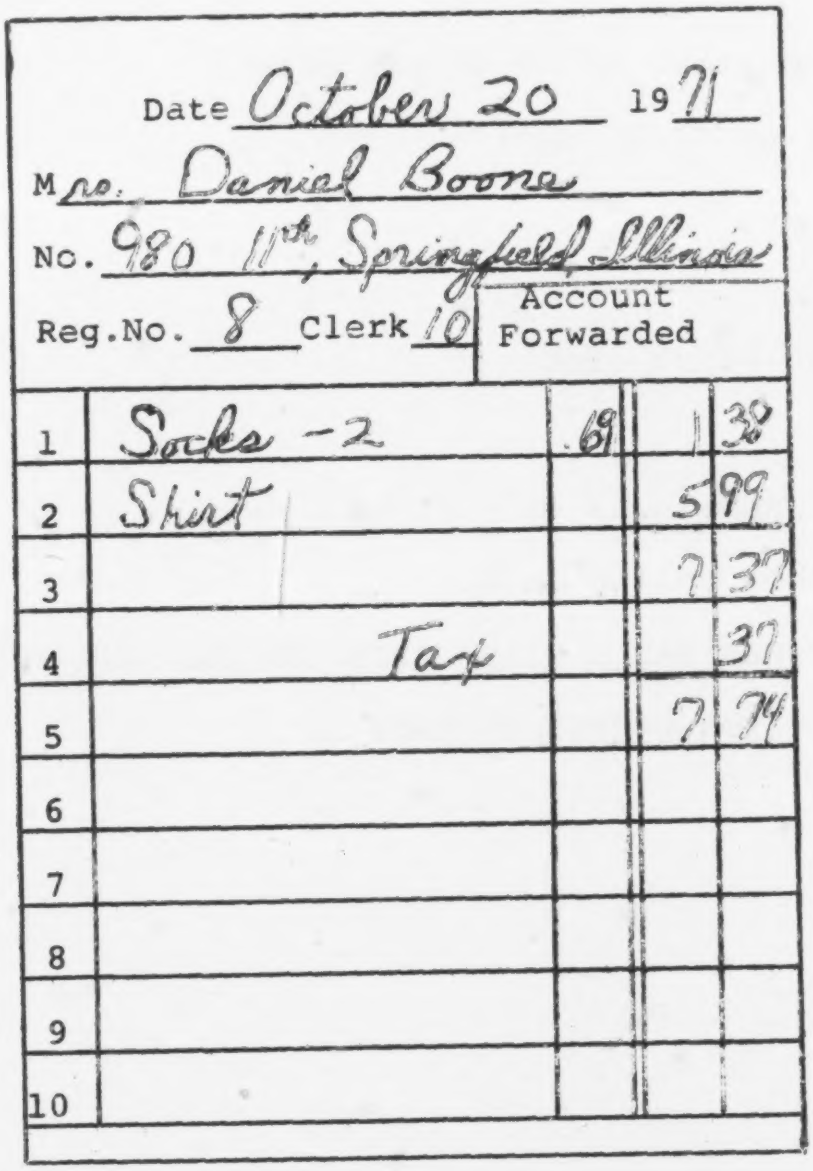
No. 980 11th, Springfield, Ill.

Reg. No. 8 Clerk 10 Account Forwarded

1	Socks - 2	.69	1	38
2	Shirt		5	99
3				
4				
5				

Now, draw a line under the amounts and add the amounts. You should get $7.37. However, this is not the total amount the customer needs to pay you. You still need to add the sales tax to the $7.37. Look in the lid of your cash box. There is a guide for figuring out sales tax. In this state the sales tax is 5% This customer's purchases totaled up to $7.37. Look at the tax guide and find the amount of tax that should be charged on a $7.37

sale. You should have discovered that the tax is $.37. Add this tax to the $7.37. Write the word "tax" on the sales slip as is illustrated below. The customer should pay you a total of $7.74.



Date October 20 1971

Mrs. Danial Boone

No. 980 11th, Springfield Illinois

Reg.No. 8 Clerk 10 Account Forwarded

1	Socks -2	.69	1	38
2	Shirt		5	99
3			7	37
4	Tax			37
5			7	74
6				
7				
8				
9				
10				

Use the sales slip pad to make out sales slips for the following purchases: (You can make up the customer's name and address. However, remember you are clerk 10 and you use cash register No. 8. Use today's date)

Sales Slip # 1

1 pair of pajamas at $4.99 per pair

2 neckties at $3.00 each

1 belt at $5.79

Sales Slip # 2

3 shirts at $4.99 each

Sales Slip # 3

3 pairs of shoelaces at $.10 per pair

1 can of shoe polish at $.49

TEAR THE THREE SALES SLIPS FROM THE PAD AND BRING THEM WITH YOU WHEN YOU LISTEN TO TAPE 3.

BUSINESS, MARKETING, AND MANAGEMENT OCCUPATIONS

Retail Salesmen and Saleswomen

Activity 5

Materials and Equipment Needed

1. Tape recorder
2. Cassette tape # 3 from Retail Salesmen and Saleswomen OCCUPAC
3. Cash box
4. Money
5. 3 Sales Slips prepared in Activity 4
6. Pencil
7. Paper

Tape Script

Hello! Today you are going to be quite busy so you will have to remember all you have learned about setting up a cash drawer, writing sales slips and making change.

First, set up the cash drawer. Remember the things I taught you about counting out the money. Make sure you fill out the change fund form and that you get the money in the right compartments. Turn off the recorder while you are setting up the cash drawer.

I asked you to bring the three sales slips with you that you prepared. Let's check now to see if you figured the tax correctly and if you have the right totals on the slips. Look for the slip that was for a purchase of pajamas, neckties, and a belt. (Pause) If you read the tax schedule card correctly, you should have charged the customer $.84 tax. This amount of tax added to the cost of the merchandise should have totaled up to $17.62. Assume the customer gave you a $20 bill. Count out the change for the customer. Turn off the tape recorder while you are counting out the change. The customer gets the carbon copy and the original copy should be left in the pad. However, for training purposes you were asked to tear out both copies. You can keep the original.

Look for the sales slip that has 3 shirts on it. If you read the tax schedule card correctly, you should have charged the customer $.75 tax. This amount of tax added to the cost of the merchandise should have totaled up to $15.92. Assume the customer gave you a $20 bill. Count out the change for the customer. Turn off the tape recorder while you are counting out the change. The customer gets the carbon copy and you keep the original.

Look for the sales slip that has three pairs of shoelaces and 1 can of shoe polish on it. If you read the tax schedule card correctly, you should have charged the customer $.04. This amount of tax added to the cost of the merchandise should have totaled up to $.83. Assume the customer gave you a one dollar bill and three pennies. Count out the change for the customer. Turn off the tape recorder while you are counting out the change. The customer gets the carbon copy and you keep the original.

I hope you enjoy working here and if you want to write up more sales slips and count out change you may do so. When you have finished, make sure you clean out the till and put all the money in the change bag. You can now rewind the tape, place the tape back in its proper place and turn off the tape recorder.

HEALTH OCCUPATIONS

The Dental Assistant

Overview

There are four activities in the Dental Assistant OCCUPAC. The first activity is a slide-tape presentation on the work of a dental assistant. The second activity involves the student in looking at some of the materials and equipment used by a dental assistant. In the third activity students prepare plaster-like model teeth. Cassette tapes provide directions for Activities 1, 2, and 3. Part of activity three is presented in printed form as well as in taped form. The tape for activity three informs the student that he has an option to use either the printed or the taped instructions. Activity four is a group activity which should be supervised by the teacher. In this activity students carve a tooth from soap.

Activities 1, 2, and 3 are intended for use on an individual instruction basis. However, the students may wish to work in pairs on Activity 3--the activity which involves making the study model of upper and lower teeth.

HEALTH OCCUPATIONS

The Dental Assistant

Activity 1

Materials and Equipment Needed

1. Tape recorder and earphones
2. Cassette Tape # 1 from the Dental Assistant OCCUPAC
3. Slide viewer
4. Set of 14 slides from the Dental Assistant OCCUPAC

Vocabulary

1. appointment
2. aspirator
3. drill
4. filling
5. instruments
6. inventory
7. napkin
8. on-the-job training
9. plaster molds
10. sterilizer

Tape Script

Interviewer: Hello! Today I'm visiting a dentist, Dr. Driller. I am waiting in the lobby and I have an appointment to speak with Miss Phyllis Filling, one of Dr. Driller's dental assistants, about her work. I don't know what a dental assistant does, do you? Hello, Miss Filling! I was wondering if I could ask you some questions about your work.

Interviewee: Hello! Dr. Driller told me you wanted to talk to me about my work as a dental assistant. There aren't any patients scheduled at the moment. You came at a good time.

Interviewer: Why did you choose to be a dental assistant?

Interviewee: I like people and I like to help people. I deal with many people each day. I also enjoy working with my hands. These are some of the most important reasons why I chose my occupation. Also, I like the variety of work that I do. I never do the same thing for a full day.

Interviewer: What work do you do?

Interviewee: I think the best way for you to learn about what I do is for me to show you what I do. Please check to see that the slides are in the proper order; then place them in the viewer. Be ready to insert a new slide each time you hear this sound. (beep) Insert the first slide.

I told you I never do the same job all day long. Here, I am greeting a patient.

Interviewer: Meeting people is one reason you chose your job, isn't it Miss Filling?

Interviewee: Yes, I greet all the patients who come to the office so I get to meet many different people. (beep)

Interviewer: Do you always wear a white dress?

Interviewee: Yes, the uniform of most dental assistants includes a white dress, white shoes, and a dental assistant pin. Sometimes dental assistants wear a white hat.

Interviewer: Why is the white paper around the patient's neck?

Interviewee: It is to protect the patient's clothing. I prepare each patient for the dentist to see. I place the white paper napkin around their necks. As I do this, I talk to the people and try to make them feel calm. By preparing the patient I help Dr. Driller. If Dr. Driller had to take time to greet the patients and put the napkin around their necks, he wouldn't be able to see as many patients each day.

Interviewer: Miss Filling, I've heard Dr. Driller's patients tell me that they enjoy coming to his office because he is a good dentist and because you are friendly.

Interviewee: Thank you! It is important that a dental assistant be friendly to patients. (beep) I work with other dental assistants. The dental assistant you see in this slide is Carol Cavity. Carol is arranging the dentist's instruments on a tray so the instruments are ready for the dentist to use on the patient.

Interviewer: This is another way to help Dr. Driller, isn't it Miss Filling? Do you do this job too?

Interviewee: Yes, all the dental assistants in our office set up trays for Dr. Driller. (beep) Miss Cavity has arranged all the instruments for Dr. Driller so he may begin work on a patient. In a way, Carol and I are very much alike.

Interviewer: How are you alike?

Interviewee: Well, we both do not like to give orders, but we enjoy taking orders. We must do what Dr. Driller asks us to do. (beep) Here, Carol is helping Dr. Driller by doing what he asked her to do. She is holding a tube called an aspirator in the patient's mouth while Dr. Driller is filling a tooth.

Interviewer: What is the purpose of the aspirator?

Interviewee: The aspirator is placed in the patient's mouth so excess moisture and saliva can be drawn or sucked from the patient's mouth while Dr. Driller is working on the patient.

Interviewer: Does the noise of the drill bother you?

Interviewee: No, I am used to it by now.

Interviewer: I don't know if I could work in a dentist's office because of the sounds.

Interviewee: A dental assistant must be able to tolerate the sound of the drill. (beep)

Interviewee: Dr. Driller has asked Miss Cavity to prepare the filling material which he will use to fill a tooth. Dental assistants must know how much filling material to prepare and how to mix the filling material.

Interviewer: How did Miss Cavity and you learn to mix the filling material?

Interviewee: I learned at the junior college in town. They offer a good one-year program for dental assisting. Some dental assistant training programs are longer than one year and some are shorter than one year.

Interviewer: Did Miss Cavity go to the junior college too?

Interviewee: No, she had on-the-job training.

Interviewer: What is on-the-job training?

Interviewee: Essentially, on-the-job training means that you are trained after you start a job. Dr. Driller and I showed Miss Cavity what to do when she came to work here. I showed Miss Cavity how to mix filling material after she started working here. (beep)

Interviewee: Remember I told you I do a variety of jobs.

So far, you have seen dental assistants greeting patients, preparing fillings, getting Dr. Driller's instruments ready for the patient, and getting the patient ready for the dentist.

Interviewer: But what are you doing in this slide? What is that big piece of equipment?

Interviewee: I'm taking X-rays. The big machine is a camera. X-rays are pictures that show the structure of the teeth and gums. By looking at the X-rays, the dentist is able to determine which teeth have cavities, where infected areas which are called abscesses may be, or how the roots of the teeth look. He also may use X-rays to look for many other things.

Interviewer: Did you learn to operate this machine at the junior college?

Interviewee: Yes, I practiced with the X-ray machine the junior college had and I learned how to develop the X-ray film. I also learned how to label, store, and file the X-rays. I taught Miss Cavity how to use the X-ray machine after she started working here. (beep)

Interviewer: It looks like you are cleaning instruments and equipment.

Interviewee: Yes, instruments are cleaned after each use. In the slide, you see Miss Cavity putting the instruments in a sterilizer. The hot sterilizer cleans the instruments so they are ready for the next patient. A sterilizer cleans the tools better than water. Some dentists also use a special cold liquid sterilizer. Special chemicals are placed in the cold liquid sterilizer. (beep)

Interviewer: Do you have any jobs that you dislike?

Interviewee: Oh yes! It is important that the dentist's office be kept clean. So, all of Dr. Driller's dental assistants take turns sweeping the floor and dusting. Here I am sweeping the floor!

Interviewer: How come you are smiling, if you don't like to sweep?

Interviewee: There's no sense grumbling about something you have to do every day. (beep)

Interviewer: It looks like you also do a little paper work.

Interviewee: Yes, I fill out a record card for each patient after their visit. Each time a patient has an appointment, I locate their record card and after they leave I record the date, the cost and the work the dentist did on the patient. In this slide a patient has just left and I am filling out their record card.

Interviewer: How can you locate the record cards--there are so many patients? Does it take a long time?

Interviewee: It's part of my job to keep the files in good order. We file everything alphabetically according to the patient's last name. You see, good secretarial skills are very important for a dental assistant. I have to know how to type, file, write up bills, and order supplies. Ordering supplies is one of my most important jobs. I have to keep an inventory or a record of the supplies we have on hand.

Interviewer: I suppose you are the one who answers the telephone.

Interviewee: Yes, the dental assistant answers the telephone in the dentist's office. We have to be pleasant when we talk on the telephone. Patients call the office in order to make appointments. It is necessary for the dental assistant to keep a record of the appointments so she knows WHO is coming on WHAT DAY and AT WHAT TIME. (beep) That is why dental assistants must be organized. Here, you can see the files that are used in Dr. Driller's office.

Interviewer: I was wondering, when do the patient's pay their bills? I know I always receive a bill in the mail.

Interviewee: Some patients have much work done on their teeth. These patients may come to Dr. Driller's office once a week for a month. Often times these patients do not want to have to pay their bill after each visit so they request that a bill be sent to them to their home.

Interviewer: Do you write the bills? (beep)

Interviewee: Do you see the typewriter? The dental assistants must be able to type so they can send the patients their bills. It is easier for the patients to read typewritten bills. It is necessary for dental assistants to type well so they do not make mistakes while typing the fees on the bills.

Interviewer: How do you know who has paid their bills and who hasn't?

Interviewee: A record is kept so we know who has paid their bills and who hasn't.

Interviewer: Can a patient pay their bill the day of their appointment? (beep)

Interviewee: Oh yes! It is important that the dental assistant be able to count change correctly. This lady is paying me after her appointment. (beep)

Interviewer: Aside from the duties we have talked about, are there any other duties you perform that you would like to tell us about?

Interviewee: Yes, sometimes when patients come to Dr. Driller for the first time, he requests that an X-ray be made of the patient's teeth and that a plaster model be made of the patient's teeth. He studies the X-ray and the plaster model to help determine a treatment plan for the patient. I take the X-rays and I make the plaster models. On another tape you are going to have an opportunity to make a plaster model of some teeth.

Interviewer: Do you have to know the names of the teeth?

Interviewee: It is important to know the names of the teeth. Sometimes when Dr. Driller is examining a patient, he will call out the names of the teeth in which he finds cavities or which he feels need to be extracted. I have a tooth chart and as he calls out the teeth, I mark an X on the proper teeth. The next time a patient comes in, Dr. Driller looks at the tooth chart and knows exactly which teeth need to be extracted or filled.

Interviewer: Miss Filling, thank you for your time! I enjoyed talking with you. Now I know some of the jobs performed by a dental assistant. You greet patients, prepare fillings, sterilize tools, keep records, answer the telephone, take X-rays, make plaster models, chart teeth, be friendly to patients, order supplies, and clean the office. You certainly do not do the same thing all day long. Is there anything else you would like to tell us about your work? (beep)

Interviewee: Yes, I have not told you about the work I do in educating people about proper care of their teeth. I show children and adults the proper way to brush their teeth. I am frequently called upon to give talks to school children. I also stress the importance of having teeth cleaned regularly by a dental hygienist. Dental hygienists receive more training than dental assistants. As part of their training, dental hygienists learn how to clean teeth.

Interviewer: I hope the students listening to this tape were able to learn as much as I did.

Interviewee: Do you think they would enjoy doing some of the things Miss Cavity and I do?

Interviewer: I don't know. Let me ask them. Would you like to do some of the jobs Miss Filling and Miss Cavity do? If you would, listen to Tape # 2. On Tape # 2 Miss Cavity and Miss Filling have some interesting things for you to look at. In activities 3 and 4 you will have an opportunity to do some of the things a dental assistant does. Miss Filling, thank you for telling us about the work that you do. You can rewind the tape, stop the tape recorder, and place the tape back in its proper place.

HEALTH OCCUPATIONS

The Dental Assistant

Activity 2

Materials and Equipment Needed

1. Tape recorder and earphones
2. Cassette Tape # 2 from the Dental Assistant OCCUPAC
3. Tray with 12 items
4. Sheet(s) of X-rays

Vocabulary

1. disposable
2. explorer
3. manual dexterity
4. mold
5. Rapid-Stone
6. saliva ejector
7. study model
8. X-ray

Tape Script

Hello! Today I am going to show you some of the materials and equipment that a dental assistant works with. You will be using some of these materials when you are working in activities 3 and 4.

Each occupation has its own technical terminology and today you will be hearing some of the words that would be commonly used around a dentist's office. In order to talk effectively with each other, the dentist, the dental hygienist, and the dental assistant--the employees you would find in a dentist's office--must understand certain technical words that are associated with the dental profession.

As you listen to this tape, be especially alert for words that are new for you.

You will be working with the materials found on the white tray, so please remove the tray from the OCCUPAC. You will also need the sheet that has X-rays of teeth on it.

Each item on the tray is numbered. Look at Items 1 and 2. Item 1 is a rubber mold which is used for making models of the upper teeth. Item 2 is a rubber mold which is used for making a model of the lower teeth. In schools that train dental assistants, the dental assistant students use these rubber molds to make study models. The students then use these study models to learn about the location, size, and shape of teeth.

Now, look at Item 3. Take the lid off the container and feel the mixture. After water is added to this dry mixture, it is poured into the rubber molds. It is a mixture similar to plaster, but is much more durable than plaster. Each manufacturer has his own brand name for this material. This particular mixture has been given the name Rapid-Stone by the manufacturer.

Let us now turn to Items 4 and 5. Item 4 is a study model of upper teeth and Item 5 is a study model of lower teeth. These study models were prepared by pouring the Rapid-Stone mixture into the rubber molds. Later on you will be given an opportunity to prepare your own study models.

Look at Item 6. Item 6 is an impression tray. This tray is used when the dental assistant needs to make models of a patient's teeth. Dentists sometimes need these models when they are determining a treatment plan for a patient.

The impression tray is used in the following manner. A soft substance is poured into the tray. The tray is placed in the patient's mouth and the patient is asked to bite down so that his teeth fit into the substance on the tray. After several minutes the tray is removed from the patient's mouth and an impression of the patient's teeth is visible on the tray. The material in the tray is allowed to dry, and then the dental assistant has a mold into which she can pour a plaster-like material to make a model of the teeth from the mold.

The mold made by the patient biting into the substance on the impression tray is similar to the rubber molds used for making study molds.

Now look at Item 7. Item 7 is a tooth which has been carved out of a bar of soap. One of the first things a dental assistant student does is carve a tooth similar to this one. The teachers who teach dental assistant classes ask the students to carve a tooth because it helps the students in two ways. First, it helps improve their manual dexterity. Manual dexterity refers to how you can use your hands. Dental assistants must learn how to handle and manipulate small instruments. Therefore, they must be skillful with their hands. Carving the soap tooth also helps the students understand and get a "feel" for the structure and shape of teeth. In Activity 4 you will be given an opportunity to carve a soap tooth.

Items 8 and 9 are examples of X-ray film, which dentists use to help determine the condition and positions of patients' teeth. Item 8 is an unexposed piece of X-ray film. You cannot see the film because it is covered with a protective material. These small pieces of film are placed in the patient's mouth and then the X-ray camera is pointed toward the film. Find Item 9. Item 9 is the sheet of exposed X-ray film. Hold the film up to the light. You should be able to see X-ray pictures of teeth. On some teeth you will see places where fillings have been put in the teeth. Look closely. You might even spot a cavity. The dental assistant takes the X-rays and develops the X-rays. Sometimes she studies the X-rays to see what is wrong with the teeth but the dentist makes the final decision about what is wrong with the teeth.

Look at Item 10. Item 10 is a cotton roll. The dental assistant is frequently asked to place cotton rolls in a patient's mouth. These rolls are usually placed between the cheek and the gum. The rolls help keep the cheek away from the teeth while the dentist is working and they also help absorb blood and saliva. Dental assistants must be able to feel comfortable about working with blood.

Now, locate Items 11, 12, and 13. These are items that a dental assistant might use while she assists the dentist at the chair. Of course, there are many other instruments and materials that the dentist uses, but these objects will give you an idea of some of the things a dental assistant works with when she is assisting the dentist.

Item 11 is a saliva ejector tip. The saliva ejector is the tube which the dental assistant places in the patient's mouth while the dentist is working on the patient. The saliva ejector helps draw saliva and blood from the patient's mouth. It is attached to a longer tube which is in turn attached to a machine. The machine provides a sucking action which removes the blood and saliva from the mouth. Pick up the saliva ejector and bend it. It bends very easily. Sometimes the dental assistant bends a little hook on the end so that the saliva ejector can hook over the patient's lip. This allows the dental assistant to remove her hands from the area of the patient's face. A dental assistant has to learn just how to place her hands when she is working near the patient's mouth so that the dentist has as much room as possible in which to work.

This saliva ejector is disposable. That means that it is thrown away after one use. Some dentists, however, use saliva ejectors that can be used more than once. This type of saliva ejector must be sterilized after each use.

Item 12 is a mirror. This is an instrument which the dental assistant hands to the dentist. The dentist uses the mirror to look at areas of the mouth which would be difficult for him to see if he did not have a mirror. Dental assistant students are taught how to hold on to the instruments and how to hand the instruments to the dentist so that the dentist can pick up the instrument in the way that is the easiest for him.

Item 13 is called an explorer. This is another item which is handed to the dentist. The explorer is used for exploring the teeth to see if any cavities can be located. The dentist uses many instruments that look similar to this one, but they may be shaped a little differently. The dental assistant must know the names of all these instruments so that she can hand the dentist the correct instrument when he asks for a certain one.

Today, you have seen just some of the materials and equipment that a dental assistant uses. After looking at these materials, viewing the slides, and listening to Tape 1, you should have a better idea of some of the skills that are needed for being a dental assistant. Today, the importance of manual dexterity was stressed. But don't forget, attentiveness to detail, ability to learn some secretarial skills, and the ability to work well with people are all important attributes needed by a dental assistant. Sympathy, understanding, and patience are also important.

With one year of training beyond high school and in some cases on-the-job training, you can become a dental assistant. After you are trained you might find yourself working in a dentist's office. However, there are other places a dental assistant may work. A few dental assistants work in industrial plants; some work in clinics; and some are on the staffs of hospitals and dental assistant schools.

Activity 3 will explain how to make a study model of upper and lower teeth, and in Activity 4 you will carve a soap tooth. There are taped and printed instructions which accompany Activity 3. All of your classmates will do Activity 4 at the same time and your teacher will give you instructions for Activity 4.

Make sure that the materials are in their correct place on the tray, place the tray back in the OCCUPAC, rewind the tape, stop the recorder, and place the tape back in its proper place.

HEALTH OCCUPATIONS

The Dental Assistant

Activity 3

Directions

Today you are going to make study models of upper teeth and lower teeth. Students who are in dental assistant training programs make these models so that they can learn the names and placement of the teeth in the mouth. In dentists' offices, dental assistants often make models of a patient's teeth. These models of a patient's teeth help the dentist prepare a treatment plan for the patient.

There is one basic difference between what you will be doing today as you make your model and what the dental assistant does when she makes a model of a patient's teeth. You have a rubber mold into which you are going to pour a plaster-like material to make your teeth models. The dental assistant needs to have a new mold for each patient because each patient's mouth is different. The dental assistant also makes this mold. When you looked at Item 6 on the white tray in the OCCUPAC, you learned that this metal form is called an impression tray. A soft substance is poured into this tray. The tray is then placed in the patient's mouth and the patient is asked to bite down so that his teeth fit into the substance on the tray. After several minutes this tray is removed from the patient's mouth and an impression of the patient's teeth is visible on the tray. The material in the tray is allowed to dry, and becomes the mold into which the dental assistant can pour the plaster-like material. Since you will be using the rubber molds in this OCCUPAC, you do not have to make your mold.

You will need the following materials from the OCCUPAC:

1. The rubber molds for the upper teeth and the lower teeth
2. Container of Rapid-Stone
3. Plastic glass
4. Mixing bowl
5. Spoon

Since you are going to be mixing materials, it would be a good idea to work on a surface that will not be damaged if you should happen to spill something. Perhaps you would like to place some newspapers on the surface on which you will be working. On this tape I am going to give you step-by-step instructions on how to make the study models. A copy of these step-by-step instructions is also in the OCCUPAC. You may want to use the taped instructions, you may want to use the printed directions, or you may want to use both taped and printed instructions. If you choose to use the printed directions, turn off the tape recorder and go to work. If you prefer to use the taped instructions, listen to the tape and turn off the recorder after each instruction. When you are ready to listen to a new instruction, turn on the tape recorder.

Use the following steps to make your study models:

1. Look at the plastic glass. The glass has a red line and a green line marked on it.
2. Fill the glass with Rapid-Stone until it reaches the red line.
3. Pour the Rapid-Stone into the mixing bowl.
4. Fill the glass with cold water until the water reaches the green line.
5. Pour the water into the mixing bowl, and use the spoon to mix the water and Rapid-Stone thoroughly.
6. Pour this mixture into the two rubber molds. Divide the mixture evenly between the mold for the upper teeth and the mold for the lower teeth.
7. It will take 45 minutes for the Rapid-Stone mixture to harden in the rubber molds. After 45 minutes have passed, remove the rubber mold from the teeth.

You now have a model of upper and lower teeth. Perhaps you would like to learn the names of the teeth. This is a project you can do if you would like. There are some reference books in your room or in your school library which will help you find the names of the teeth.

HEALTH OCCUPATIONS

The Dental Assistant

Activity 4

Directions

Activity 4 is a group activity which should be conducted under the supervision of the teacher. In order for students to participate in the activity, each student will need to have a table knife with which he can work and a bar of Ivory soap. The teacher will want to relay the following information to the students:

Today, you will get some practice in improving your manual dexterity. Remember, manual dexterity relates to your ability to use your hands. You will also have an opportunity to develop a better understanding of the shape of teeth. You will learn these things by carving a tooth out of soap.

You will need the following materials:

1. a bar of soap
2. table knife

You will also need the study models that you prepared.

Select one tooth from either the study model of the upper teeth or the study model of the lower teeth. You are going to carve a tooth from the soap like the tooth you selected on the study model. See if you can make your tooth look like the one you selected. Of course, your tooth will probably be larger than the one on the study model.

While you are carving, be especially careful to rest the hand that holds the tool against either the soap itself or against your other hand which is holding the soap. This will give you better control of the cutting blades, and help to prevent wasteful mistakes. Make each of your cuts carefully and for a definite purpose.

INDUSTRIAL ORIENTED OCCUPATIONS

The Carpenter

Overview

There are three activities in the Carpenter OCCUPAC. All three activities are presented on cassette tapes and are intended for use on an individual instruction basis. Activity 1 is a slide-tape presentation on the work of a carpenter. In Activity 2 the students get to examine and work with a model of a cross section of the foundation, walls, and roof of a house.

Activity 3 is a measuring activity. Taped and printed directions give background information on how to measure in fractions of inches. The students then use a steel tape to measure the various dimensions of four boards. A measuring exercise sheet has been provided so that students can record the dimensions they have measured. An answer sheet for the measuring exercise is included in the instructional guide and in the OCCUPAC. The teacher may wish to remove the answer sheet from the OCCUPAC but students will need this answer sheet to check their answers.

INDUSTRIAL ORIENTED OCCUPATIONS

The Carpenter

Activity 1

Materials and Equipment Needed

1. Tape recorder and earphones
2. Cassette tape # 1 from Carpenter OCCUPAC
3. Slide viewer
4. Set of 11 slides from Carpenter OCCUPAC

Vocabulary

1. apprentice
2. baseboard
3. blueprint
4. carpenter's helper
5. finish carpenter
6. framing square
7. power saw
8. radial arm saw
9. rough carpenter
10. shingles
11. siding
12. specifications
13. table saw

Tape Script

Interviewer: Hello! It's kind of noisy out here. Today I am at a construction site. Mr. Sydney Sawyer has agreed that he would talk to us about his work as a carpenter. Please check to see that the slides are in the proper order. Then place them in the viewer. Be ready to insert a new slide each time you hear this sound (beep). Please insert a slide. Mr. Sawyer, can you take a few minutes away from your work to talk with us?

Interviewee: Yes, I can. I knew you were coming so I've shown my helper how to take over and do what I was doing while I am talking with you.

Interviewer: I didn't realize that all carpenters have helpers or assistants.

Interviewee: Not every carpenter does have a helper. However, there is such a great demand for carpenters in our area right now that all the experienced carpenters in our construction company have helpers. These helpers are learning some of the carpentry skills by working with the experienced carpenters.

Interviewer: Is your helper also called an apprentice?

Interviewee: Some people call him an apprentice there is a difference between an apprentice and a carpenter's helper. A carpenter's helper usually learns the carpentry trade by working with an experienced carpenter. An apprentice usually spends at least four years receiving on-the-job training, plus about 600 hours of classroom instruction that relates to his on-the-job training and work.

Interviewer: I never realized that carpenters needed so much training.

Interviewee: Let me tell you about what I do and maybe you will see why there are many things that we have to know how to do. The picture you are looking at shows some of the materials that are brought in to the construction site. My company builds new houses. All the lumber and other materials you see here will be used to build a house next door to the house we are working on now.

Interviewer: It takes a lot of planning just to get all the materials that you need for building a house. (beep)

Interviewee: Yes, it does. Carpenters have to know how to work with plans also. This carpenter is looking at a blueprint. The blueprint is the plan that is used for constructing the house. Carpenters must know how to read the blueprints so that all the lumber is measured and sawed to fit the specifications on the blueprint.

Interviewer: Carpenters must have to know how to solve arithmetic problems quickly and accurately.

Interviewee: We certainly do. In fact, I would rank the ability to solve arithmetic problems along with the ability to handle and use tools as two of the most important things a carpenter must be able to do. (beep)

Interviewer: I see what you mean. I've noticed that this man is constantly using his tape measure to figure out where he should cut the boards.

Interviewee: While we're walking over to take a closer look at what he is doing, I want to show you the tool boxes that are used for carrying tools. The tool boxes are pretty heavy after the carpenters get all their saws, hammers, and other tools inside them. You have to be in good physical health to be a carpenter because you do a lot of carrying of heavy materials and you do a lot of climbing.

Interviewer: You certainly couldn't be afraid of working up high off the ground, could you?

Interviewee: No, my wife sometimes worries about me when she knows I am working on a project where I will be up working on roofs or other high places. Before we leave this man let's take a look at what he does after he has measured the lumber.

(beep)

After he has measured the piece of lumber, he wants to make sure that he cuts the lumber straight. Before doing the actual sawing, most carpenters use the tool that you see here to draw a line on the piece of lumber. This tool is called a framing square.

(beep)

After they have drawn the line, they saw the lumber on the line they have drawn. This man is using a power hand saw to do the cutting.

Interviewer: It seems to me that sometimes I have seen carpenters working on houses and they have had saws which are mounted on tables.

Interviewee: Yes, we have a number of these saws. They are called table saws. Just now, our construction company is working on so many different houses that we are a little short of equipment. You know, our work is a seasonal kind of work. The spring, summer and fall are the times when we are the busiest.

Interviewer: Do you mean that you don't have a job during the winter?

Interviewee: Our boss tries to schedule the building of some houses so that the exteriors are finished by the time winter comes and then we work on the interiors during the winter months. However, we never have enough interior work to keep everyone busy and some carpenters just are not skilled enough to do all the finishing work that is needed on the inside of a house. I should point out to you that carpenters who specialize in working on the exteriors of houses are called rough carpenters. They do work like putting up all the frameworks, putting in partitions, and putting in rafters. Carpenters who do the interior work are called finish carpenters. They install molding, wood paneling, cabinets, window sashes, door frames, doors, and hardware.

Interviewer: I would think it would be to your advantage, if you want to work in the winter months, to know how to be a finish carpenter as well as a rough carpenter.

Interviewee: Yes, it would. However, a finish carpenter must pay much more attention to small details. They have to consider the appearance as well as the structural accuracy of their work. Not all rough carpenters like the precise kind of work that a finish carpenter must do.

Interviewer: I see that the carpenter who was measuring and cutting lumber is now hammering some of the lumber together. (beep)

Interviewee: He is nailing a frame together. Let's walk over to a house that is a little more completed and I'll show you what happens to the frames he is nailing. (beep) On this house we can see how the frames have been nailed in place. (beep) After the carpenters have erected the frames, there is still more carpentry work that needs to be done. Big sheets of plywood are nailed to the frames.

Interviewer: Is this all of the work that a carpenter does on the outside of houses?

Interviewee: No, carpenters are involved in putting siding over the sheets of plywood. They also do the shingling of the roof.

Interviewer: Do you have any houses that are far enough along that the finish carpenters are working on the interior?

Interviewee: Down at the end of the street we have a house where the finish carpenters are working. We'll walk down there and see what they are doing. (beep) It looks like this finish carpenter is measuring some wood for baseboards. Eventually he will install this baseboard in the house. I notice he is using a different kind of saw. (beep) This saw is called a radial arm saw.

Interviewer: Do you have many men who are injured while they are using electric saws?

Interviewee: Occasionally we have a man who gets hurt. Whenever you have power equipment, no matter how careful the workers are, there is an occasional accident.

Interviewer: You have told us a great deal about your work, but you haven't told us much about yourself. Do you plan to keep on working as a carpenter?

Interviewee: You know most people think a carpenter does a lot of routine work. But, I've never felt that way about my job. To me, every house I work on is a new challenge. (beep) To me, I feel a great sense of accomplishment when we finally finish a house. I don't get bored with my work because every time I saw or every time I cut, I have to be thinking. I also enjoy being outside instead of being cooped up in an office or in a factory. I know some people prefer working inside--but not me. Oh, some nights I come home pretty exhausted from all the physical activity, but all in all I enjoy this way of making a living.

Interviewer: Mr. Sawyer, you've given us some good information on your work as a carpenter. I'll say good bye for now and let you get back to your work. Thank you for taking this time from your busy schedule to help us. Please rewind the tape, stop the tape recorder, and place the tape back in its proper place.

INDUSTRIAL ORIENTED OCCUPATIONS

The Carpenter

Activity 2

Materials and Equipment Needed

1. Tape Recorder
2. Cassette Tape # 2 from Carpenter OCCUPAC
3. Study model of wall section of a house

Vocabulary

1. blueprint
2. box sill
3. concrete
4. cross section
5. decking
6. insulation
7. jcist
8. plasterboard
9. plate
10. rafter
11. sheathing

Tape Script

Hello! On the last tape you learned that carpenters can work in many different places. Some carpenters do repair work, alterations work, or modernization work. A large number of carpenters do maintenance work in factories, hotels, office buildings, and other large establishments. They are also employed in shipbuilding, in mining, at highway construction sites, and in the production of many kinds of display materials.

Of course, as you saw in the slides, many carpenters work in the construction industry and are employed mainly by contractors and homebuilders at the construction site.

You learned from the slides and Tape # 1 that carpenters who work in the construction industry often specialize in rough carpentry or they specialize in finish carpentry. Some carpenters can do both rough carpentry and finish carpentry work.

Today you are going to have an opportunity to study and work with a model that illustrates how the roof, the wall, and the foundation of a house would look if you were able to look inside the roof, the wall, and the foundation. This type of model is known as a cross section of part of the house. Through studying and working with this model you will learn about some of the things a rough carpenter must know when he is helping construct homes.

In the OCCUPAC you will find a blueprint and some small pieces of wood. Some of the pieces have been glued together to form sections. There should be three of these sections and a small piece of concrete.

Look at the blueprint. A blueprint is the drawing that the carpenter looks at when he is building a house. This blueprint is a cross section of a side of a house. You are going to place the wooden sections and the concrete on the blueprint. This will help you understand some of the terminology, some of the processes, and some of the materials used by the rough carpenter when he is constructing a home.

The names of the parts of the house are written on the blueprint. This will help you determine where the wooden sections should be placed on the blueprint.

I will tell you how to place the wooden sections and the concrete on the blueprint. We will start with the foundation. Look on the blueprint for the place that is labeled "foundation." Concrete is one of the materials that is used for the foundations of houses. Place the concrete on the blueprint so that it covers the area marked "foundation."

After the foundation is in place, the carpenter then completes the floor sections. Look at the three wooden sections. Find the section that represents the floor section of the house. Place the floor section on the correct place on the blueprint. Stop the recorder if you need time to find the floor section. Start the recorder when you are ready for more directions. If you study the floor section you will notice that a wooden plate is attached to the concrete foundation. This plate is bolted to the foundation and provides the means by which the house is secured to the foundation.

After the plate is bolted in place, the box sill and the floor joists are nailed in place. The subflooring, which is usually made of plywood, is then nailed to the joists and the box sill.

Now place the wall section on the correct place on the blueprint. Stop the recorder if you need time to find the wall sections. Start the recorder when you are ready for more directions. Some of the parts of the wall section are placed on the floor of the house and are nailed together to form a frame. After the frame is nailed together, the carpenter positions the frame in place. The pieces on the model that are labeled stud, top plate, and bottom plate are the pieces that form the frame.

Now place the roof section on the correct place on the blueprint. The rafters and the joists are cut, nailed together and then nailed to the frame. The plywood decking is nailed to the rafters. Roofing materials, such as shingles, are eventually placed over the plywood decking.

After the basic parts of the roof are in place, then more work is done on the wall section. Some type of sheathing is nailed to the studs. This sheathing can be of plywood, but it can also be of other materials. The exterior siding is placed over the sheathing. Various kinds of exterior siding--brick, shingles, stone, planking--can be used on the exterior. A board siding has been used on the model.

Insulation is placed between the studs and then plasterboard is placed over the studs. Insulation fills the space between the plasterboard and the sheathing.

Before you studied this model, were you aware that there are so many steps in home construction that involve carpenters? Did working with the model help you understand that the carpenter must be acquainted with many technical aspects of home construction.

Through studying the model you learned some of the terminology, some of the processes, and some of the materials that are associated with home construction. Of course, you did not study how doors are hung in place, how windows are set in place, etc. If you are interested in learning some of the procedures associated with other phases of home construction, you might want to look at a book on carpentry. If there is an industrial arts teacher in your school he may have books that will help you or your school library or public library may have books on carpentry.

As you looked at the model, did you think about all the physical effort that is exerted when a house is built? Do you think you would enjoy working with your hands to create buildings? Would you like to climb ladders to help nail wall frames in place? Would you like to work with all the hand tools and the electric tools a carpenter uses? Would you like to learn how to work with all the different building materials that carpenters use? Would you like to do all the precise measuring that is needed for constructing a house?

Activity 3 will help you gain some practice in learning how to measure. Carpenters frequently have to measure things in fractions of inches so Activity 3 will give you an opportunity to learn how to measure in fractions of inches.

Please rewind the tape, turn off the tape recorder and place the tape back in its proper place.

INDUSTRIAL ORIENTED OCCUPATIONS

The Carpenter

Activity 3

Materials and Equipment Needed

1. Tape recorder and earphones
2. Cassette tape # 3 from Carpenter OCCUPAC
3. Steel tape
4. Boards
5. Measuring book
6. Measuring exercise sheet

Vocabulary

1. dimensions
2. steel tape

Tape Script

Hello! Today you're going to learn more about the work of the carpenter. One of the most important skills that a carpenter must develop is measuring. He must be very accurate in his measurements, or the boards he is working with will not fit properly. One of the measuring instruments which the carpenter uses a great deal is the steel tape. There is a steel tape in a metal case in the OCCUPAC. Take it out and look at it. Notice that there is a clip on one side of it. A carpenter will often clip his tape measure on his belt when he is not using it.

Hold the tape case in your right hand with the hook away from you. Facing you should be the side which has a small black lever and a rectangular button saying, "Press Here". The black lever is a lock. When it is up, the tape is movable; when it is down, the tape is held fast. The rectangular button rewinds the tape into the case. This happens rather quickly, so be sure that you are not touching the steel tape when you press the button.

Push the lock lever up and with your left hand pull the tape out a few inches. Now let go of the tape. Be sure none of your fingers are near it and press the rewind button. You can see how fast this rewinding happens, and why you must be especially careful to avoid being cut by the moving tape. Practice pulling out and rewinding the steel tape two or three more times. Stop the recorder while you are doing this.

Now pull the tape out until it shows two feet. Notice that after the one foot mark there are two sets of numbers: the top set repeats the inches from one through twelve, and the bottom set continues counting inches from twelve. You can see that fifteen inches on the bottom set is equal to one foot, three inches on the top. Both ways of counting inches are important for a carpenter.

Now that you are familiar with the steel tape, let's look at how it is used. Take the measuring book out of the OCCUPAC and open it to the first page. Drawing # 1 shows you how to use the steel tape when taking a measurement. You simply hook the hook on the end of the steel tape on the end of the board and pull the tape out until you can read the measurement on the other end of the board. Then return the tape by pushing the button.

Now look at Drawing # 2. This drawing shows you how to read the markings on the steel tape. Each inch is divided into halves of an inch, one-fourths of an inch, one-eighths of an inch, and one-sixteenths of an inch. The smallest marks are the sixteenths, the next larger mark, eighths, the next larger mark, fourths, and the largest mark, halves. There is a solid line across the tape at every inch, and the inch number is beside it.

Now look at Drawing # 3. This drawing shows how boards are measured. We call these measurements dimensions. These dimensions describe the board to someone else. For example, a carpenter may tell his helper to bring him a 6 ft. long 2 X 4. The helper will bring him a board that is 6 ft. long, two inches thick, and 4 inches wide. The helper was able to select the right board for the carpenter because he knew the dimensions of the board.

The next page in the measuring book shows you how to use the steel tape to measure the dimensions of the board. Look at this page. Drawing # 4 shows you how to measure the length of a board, Drawing # 5 shows you how to measure the width of the board, and Drawing # 6 shows you how to measure the thickness of a board. Drawing # 7 is an example of measuring the width of a board. In this picture, you can read the tape and see that the board is 2¼" wide.

Now that I have told you how to use the steel tape, let's see how well you can measure. Take one of the measuring exercise sheets out of the OCCUPAC, and take the boards out of the OCCUPAC.

The sheet has a chart on it where you will record your measurements for the boards. You will be measuring the length, width, and thicknesses of the boards.

Board A has been done for you. Take the steel tape, measure board A, and see if the measurements are correct.

Now measure and record the dimensions of boards B, C, and D. You may want to look back at the examples in the measuring book to be sure you're doing it correctly. When you are finished, your teacher has an answer sheet for you to check your measurements with.

Now rewind the tape, turn off the recorder, and begin measuring the boards.

Carpenter Activity #3

Teacher's answer sheet for measuring activity.

Board	Length	Width	Thickness
A	6"	3½"	1"
B	1'6"	2"	¾"
C	1'1¼"	3⅛"	¾"
D	8¾"	3½"	1½"

MEASURING ACTIVITY SHEET

Helpful Information: ' = feet " = inches

Example: three feet and six inches = 3'6"

board	length	width	height
A	6"	3½"	1"
B			
C			
D			

PERSONAL AND PUBLIC SERVICE OCCUPATIONS

The Chef/Cook

Overview

There are four activities in the Chef/Cook OCCUPAC. The first three activities are presented on cassette tapes. Activity 1 is a slide-tape presentation on the work of a Chef/Cook. In Activity 2 the students get to plan a school lunch menu for 300 people and in Activity 3 students learn some of the terminology needed by a chef/cook.

In Activity 4 students get to use their knowledge of the new vocabulary learned in Activity 3 through a group activity known as Recipe Rummy. At least three players are needed. Players should listen to Tape 3 before playing Recipe Rummy. Printed directions for playing Recipe Rummy are included in the OCCUPAC.

Activities 1, 2, and 3 are intended for use on an individual instruction basis and Activity 4 is a group activity.

PERSONAL AND PUBLIC SERVICE OCCUPATIONS

The Chef/Cook

Activity 1

Materials and Equipment Needed

1. Tape recorder and earphones
2. Cassette Tape # 1 from Chef/Cook OCCUPAC
3. Slide viewer
4. Set of 12 slides from Chef/Cook OCCUPAC

Vocabulary

1. measuring
2. mold
3. recipe
4. utensil
5. weighing

Tape Script

Interviewer: Hello! It certainly is noisy where I am standing. (SOUND) Today I am in a kitchen of a cafeteria and Mr. Byron Baker has agreed to talk with me today about his work as a chef. The chef is the head cook. He will also tell us about the work of a cook. Will you please check to see that the slides are in correct numerical order and then insert the stack of slides in the slide viewer. Whenever you hear this sound (beep) you should insert a slide. Mr. Baker could you talk with me now?

Interviewee: Of course, I can. I have lots cooking, but my helpers are watching the food so that I can take a few minutes away from my work. Would you like to look around the kitchen? There is a lot for you to see.

Interviewer: Yes, I'd like to see what is going on in the kitchen. (beep) Look at all of the utensils! Now I can understand why it gets noisy in here.

Interviewee: We do have a variety of utensils. There are all shapes and sizes of cooking pans, spoons, knives, bowls, and tongs which are used to pick up hot food.

Interviewer: (beep) I notice one worker reaching for an item that I have never seen before. What is it?

Interviewee: That is a BEATER. We use it to mix cakes, mashed potatoes, etc. It probably looks different from the beaters you have seen because it is larger. If you will follow me, I will show you the machine to which the beater is attached.

Interviewer: You probably need a large beating machine or mixer because you don't cook for 4 or 6 people; but for hundreds of people.

Interviewee: (beep) Here is the machine. The beater is attached to the top of the machine and the ingredients are poured into the large bowl. We can mix the batter for many cakes at one time. This machine, because of its size, saves us a great deal of time. All employees receive careful training on how to use this machine because an employee could get hurt if he placed his hand on the beater while the machine was running.

Interviewer: (beep) I notice that you are wearing a white apron and a white shirt.

Interviewee: It is required by the government that all chefs be very clean. Each day I wear my regular clothes to work and then I change into a clean apron, shirt, and pants. A government inspector comes to visit our kitchen several times during the year to make sure that it is clean. All of the workers, including myself, must be free from all diseases.

Interviewer: I understand because you work with food that will be served to many people, that it is necessary that you are clean. Does the lady who is working with the rolling pin have any other jobs? (beep)

Interviewee: No, that is Betty, our baker. Betty has only one job and that is baking. She makes delicious pies, cookies, and cakes. She gets many favorable comments on her baked goods so she is very proud of her baking skills.

Interviewer: It smells like chocolate chip cookies are baking, and they smell good!

Interviewee: Betty is constantly trying new recipes. After all, she does want a variety in the dessert section. Because of our wide selection, people enjoy eating at the cafeteria.

Interviewer: (beep) If Betty's job is only baking, then the girl who is making the salads must have only salad making as her job.

Interviewee: Sally is our salad maker. (SOUND) She chops lettuce, cuts tomatoes, radishes, cucumbers, peppers. Salad making is her only job. Sally makes pretty salads. She knows customers will want to buy a salad that is colorful.

(beep)

Interviewer: What a pretty salad! It is fish-shaped.

Interviewee: Susan is also a salad maker. She works hard to make the salads attractive. She uses a mold to get the fish design.

Interviewer: Are there other shaped molds?

Interviewee: Certainly. For Christmas there are Christmas trees and angel shaped molds. There are heart shaped molds for Valentine's Day, and turkey shaped molds for Thanksgiving.

Interviewer: The green lettuce that Susan is putting around the salad molds helps make the salads look pretty. As the chef, do you supervise all the workers in the kitchen?

Interviewee: Yes, I do supervise the workers. I make sure Sally, our salad maker, uses ripe tomatoes, fresh lettuce, and cucumbers, and that she cleans the vegetables before cutting them. Also, I must make sure Betty does not overbake the desserts so they are burned, and I must be sure Betty cooks the desserts long enough.

Interviewer: It is important that the kitchen always has enough food. Do you keep a record of the food supplies that you have on hand?

Interviewee: Yes, I do, but I do not order the food. I tell the cafeteria director how much food is needed and request certain brands of food.

Interviewer: There must be many refrigerators or a few huge refrigerators in order to store all of the food.

Interviewee: (beep) In our kitchen we have three large refrigerators. In fact, our refrigerators are so large that we are able to walk inside.

(beep)

We have one large refrigerator for meats, one for fruits and vegetables and we have a large freezer for frozen items such as ice cream.

Interviewer: You must get cold when you walk inside the refrigerator.

Interviewee: Yes, it is very cold, but we usually do not stay in the refrigerator very long--just long enough to get what we need.

Interviewer: (beep) My goodness! What a large bowl. What is this lady making and why such a large amount?

Interviewee: This is Carol, and she is making cole slaw for this evening. It is much easier for Carol to make cole slaw in a large bowl than in a small bowl, because she can make more cole slaw at one time.

I must stop and check the ovens. Would you mind coming this way, please?

Interviewer: What do you have cooking in the oven?

(beep)

Interviewee: Two hams. They have just now finished cooking. I'm glad I remembered to check them. I wouldn't want to overcook them.

Interviewer: You must have to know a great deal about food--for instance, how long the hams had to be cooked.

Interviewee: Oh yes--not only must I know how long food should be cooked but I must be able to select food that goes together and that would make an appealing meal. Also, I must know the good brands of food, so I can order the best brand for our needs.

Interviewer: How did you learn all of these things?

Interviewee: I had on-the-job training. I started out as a cooks helper and the cook supervised me while I was learning. He not only taught me about how to work with food but also taught me how to use all the machines and equipment that you see here in the kitchen. Once a year I attend a one- or two-day training school where I learn about new foods, new equipment, and new laws pertaining to food preparation and service.

Interviewer: You said you learned to be a cook through on-the-job training. Are there schools that you can go to where you can learn to be a chef or cook?

Interviewee: Yes, there are many high school programs, vocational school programs, and junior college programs where students spend part of their day in the classroom receiving instruction in such things as baking, broiling, and other methods of preparing food, and in the use and care of kitchen equipment. Instruction may also be given in selecting and storing food, planning menus, buying food supplies in quantity as well as the sanitation and public health aspects of handling food.

Interviewer: Do you decide which food is to be served for every meal?

Interviewee: Yes, would you like to see what I've planned as a salad for lunch?

Interviewer: Yes, I would.

Interviewee: Follow me. I think it is quite attractive. (beep)

Interviewer: Peaches with a cherry on top. Yes, the colors look nice.

Interviewee: I've enjoyed talking to you but it is almost lunch time. Each meal time is busy for us. I must make sure the cafeteria doesn't run out of food; and if it does, I must get some replacements very quickly. Now, it is important for me to make sure all of my workers have their food prepared and ready to be put in the cafeteria.

Interviewer: Thank you very much Mr. Baker for your time. I understand you must get back to work. Good bye.

Interviewee: Good bye.

Interviewer: The people in the kitchen certainly are busy preparing foods.

The chef has a lot of important work to do. He must know all about food; how to cook food and how long, what brands to buy--and he must know what foods go together for a well balanced meal. Also, the chef must make sure that enough food has been cooked.

Mr. Baker was so enthusiastic about his work. This is something that I have noticed about some cooks and chefs. Some of them are very proud of their work. As I walked around the kitchen I got a very good feeling. The workers seemed to be enjoying their work. Several of them were joking with each other while they were busy with their hands cutting up cucumbers or cutting out cookies.

Mr. Baker didn't say anything about all the measuring that cooks and chefs have to do. I noticed that several of the workers were weighing flour. When they cook in such large quantities they use a scales to measure the ingredients rather than measuring cups or spoons. Just imagine how many pounds of flour it would take to bake cookies for 300 people. I happened to peek into one of the recipe files and I saw that the recipes were written up in pounds rather than in cups. A cook or chef would have to know how to weigh the ingredients for the recipes. He would also have to know how to do all the calculations necessary for doubling or tripling a recipe.

I'm sure that our visit with Mr. Baker has given us much information on the work of cooks and chefs. Do you have any skills which you think would help you if you wanted to be a chef? Which aspects of Mr. Baker's work would you like to do? Do you enjoy working with your hands? Are you good at remembering details--like how many pounds of brown sugar go in the chocolate chip cookie recipe? Are you a good planner? Do you think it would be a rewarding experience to prepare attractive foods that people enjoy eating? Would you like to work indoors all day?

On tape two you will be given the opportunity to plan a lunch for 300 people. Now you can rewind the tape, turn off the tape recorder, and place the tape and slides back in their correct place.

PERSONAL AND PUBLIC SERVICE OCCUPATIONS

The Chef/Cook

Activity 2

Materials and Equipment Needed

1. Tape recorder and earphones
2. Cassette Tape # 2 from the Chef/Cook OCCUPAC
3. Recipe Box
4. Sample Menu Sheet
5. Food Buying Guide

Vocabulary

1. ingredients
2. ounces

Tape Script

Hello! Today you are going to have a chance to do some of the things a school chef or cook does. You are going to plan one school lunch menu. You will plan this lunch menu for 300 students. A chef always knows how many ingredients he must have in the kitchen to cook a planned school lunch menu. Ingredients are all the items which are put into a recipe. Flour, sugar, salt, milk, water, and eggs are examples of ingredients. It is important, too, that you know how many ingredients are needed for your menu if you are going to plan as a chef would plan.

You probably have helped your mother cook. Maybe you have cooked something by yourself with a church group, or with other groups. But, I'm sure that you have never cooked for 300 people. Do 300 people seem like a lot of people to you? I have an easy way for you to determine your menu and amount of ingredients.

Chefs keep their recipes together. There is a recipe box for you in the OCCUPAC. Inside the recipe box, you will find a wide variety of recipes. These recipes will help you select your lunch menu and the necessary ingredients. The recipe box has recipes for cereal products, soups, desserts, vegetables, main dishes such as meats, sauces, gravies, salads, salad dressings, and sandwiches. You may select any of the foods in the recipe box for your menu.

You must remember, just as a chef remembers, to keep your menu well-balanced. A chef would not plan a school lunch which serves two types of potatoes and no vegetables. Nor would he plan macaroni, potatoes, and bread to be served in the same meal. Instead, he might serve one green vegetable and one potato as part of the menu. Also, a chef tries to plan a colorful menu; you should try to plan an appealing menu.

Perhaps you have never planned a menu. There are some leaflets in the OCCUPAC that will help you plan a well-balanced menu. You might want to read these leaflets before you decide what will be on your hot lunch menu.

Perhaps your menu will include your favorite lunch or maybe you will find something in the recipe box you think would be delicious although you have never tasted it. Please get the recipe box from the OCCUPAC. Stop the recorder. Open the recipe box. Do you see the green cards? The green cards separate the food types from one another. Find the green card that has SALADS on it. All of the white cards behind the green salad card and before the green SALAD DRESSING card are salad recipes. In this way, all foods of one type are kept together.

Look closely at the green SALAD card. Pull it up. It is an index card, because it tells you all the kinds of salads you will find in the recipe box and where they are to be found. You should look at both sides of the green cards because some index cards have information on both the back and front. The salad index card uses both sides of the green card. The E on the salad card is important because all of the salad cards have an E on them to help keep the salad cards together. All of the salad dressing cards have an F on them to help keep them together. Look at the SALAD index. On what card would you find a recipe for cole slaw salad? (Pause) If you said E-5, you are right.

Now, find the white recipe card for cole slaw. The title of each recipe card is at the top of each recipe in heavy black letters. Look at the recipe for cole slaw. If you were to select cole slaw as part of your menu, you would want to know the amount of ingredients required to make cole slaw. You will only be concerned with the measurements found in the second column entitled WEIGHTS. I have put a red dot in the weight column of every recipe card to help you remember.

The E in E-5 means the cole slaw card is behind the salad and before the salad dressing index card, because it is lettered with an E. It also means you look behind the index card until you find E-5. Each section is in numerical order. Please put the recipe back in its proper place.

Find the first green index card. Printed on it is GENERAL INFORMATION. You may want to read some of the materials in this section before you begin planning your menu. There is a special sheet in the OCCUPAC which says, TODAY'S LUNCH MENU. Please find this sample sheet. Stop the recorder while you look.

I have made a lunch menu just like one that you will make.

Look at the top of the menu. You will see the menu I have selected. Do you think it would be colorful and well balanced?

At the bottom of the menu, I have figured the amount of ingredients which will be needed to cook the menu.

I did all my multiplying and figuring on a separate sheet. You should find this sheet in the OCCUPAC. It is called "Ingredients Work Sheet for Serving 300 People." After you finish this tape you may want to study this sheet to see how I figured out the amounts for each ingredient. A chef has to plan in advance so he can have the ingredients to cook what he plans.

Each recipe on the recipe cards serves only 100 people, and your menu calls for 300 people to be served. What are you going to do? This is a simple problem for a chef to solve. A chef would multiply each measurement of the recipe by 3. Therefore, your recipe is made to serve 300 people. Quite often chefs deal with recipes for only 100 people. Sometimes they must cook and plan for 500 or 1,000 people, then they multiply the measurements just as you will do. Look closely to see how I have figured the ingredients. Remember there are two columns on each recipe card, one column says "Weights"; the other column says "Measures". You will use the "Weights" column. Stop the recorder while you look. Remember, you will multiply each recipe measurement by 3, so that your recipe will be made to serve 300 people.

Besides using the recipe box, there is another source you may use in planning your menu. This is the FOOD BUYING GUIDE. The FOOD BUYING GUIDE will help you to select foods that are not mixed together, but rather are cooked or served separately, by themselves. Usually, they come packaged in cans or by the pound. Examples of such foods to be found in the FOOD BUYING GUIDE are: carrots, peas, peaches, pears, and berries.

The FOOD BUYING GUIDE is a green booklet. You will find it in the OCCUPAC. Please get the FOOD BUYING GUIDE and stop the recorder while you get it.

The white tabs with orange lettering are the index pages just as the green cards are the index in the recipe box. There is one difference, however. The white index pages do not have printing on them. Each section is alphabetized just as a dictionary is indexed.

Please look at page 53 in the FOOD BUYING GUIDE. Find the peas and carrots. You will find the peas and carrots in the "Food as Purchased" column. I have put red dots in the columns you need to look at. (Pause) Now look in the "purchase unit" column. You will see that peas and carrots can be purchased in a number 10 can or a number 303 can. The numbers tell the can size. (Pause)

Next, you will look in the "Purchase Units for 100 Servings" column. If you select a number 10 can for the peas and carrots, then for 100 servings, you need 4½ cans. But this is only for 100 servings. How would you figure the number of cans you need to serve 300 people?

(Pause) Yes, you will need to multiply 4½ by 3 in order to find how many number 10 cans of peas and carrots you would need for 300 people.

You will find menu sheets for you to use in the OCCUPAC. These sheets are similar to the sample one you looked at, except the menu and ingredients are left blank for you to fill in.

After planning your menu and ingredients, you will realize how important measuring is in a chef's work. If a chef measures incorrectly, the food will not taste as it should.

I hope you will listen to Tape 3. On Tape 3 you will learn about some of the terms and tools used by a chef/cook. Learning about these terms and tools will help you to play a game in Activity 4.

Now, rewind the tape, stop the recorder, and put the tape back in its proper place. Good bye.

SAMPLE

SAMPLE

TODAY'S LUNCH MENU

Pigs in Blanket
Golden Potatoes
Tossed Salad
Cherry Cobbler
Milk

oz. = ounce
lb. = pound

INGREDIENT	AMOUNT NEEDED FOR 100 PEOPLE (recipe card figures amounts for 100 people)	AMOUNT NEEDED FOR 300 PEOPLE
Pigs in a Blanket		
Active Dry Yeast	2½ oz.	7½ oz.
Melted oil	8 oz.	1 lb. 8 oz.
Nonfat dry milk	7 oz.	1 lb. 5 oz.
Sugar	8 oz.	1 lb. 8 oz.
Flour	7 lb. 4 oz.	21 lb. 12 oz.
Frankfurters	12 lb. 8 oz.	37 lb. 8 oz.
Golden Potatoes		
Cooked pared potatoes	21 lb. 12 oz.	65 lb. 4 oz.
Butter or margarine	1 lb.	3 lb.
Flake Cereal crushed	1 lb. 4 oz.	3 lb. 12 oz.
Salt	2 3/4 oz.	8¼ oz.
Tossed Salad		
Head lettuce	4 lb.	12 lb.
Spinach, chopped	1 lb.	3 lb.
Onion, chopped	12 oz.	2 lb. 4 oz.
Cucumbers, pared	6 lb.	18 lb.
Radishes, sliced	2 lb.	6 lb.
Salt	4¼ oz.	12 3/4 oz.
Cherry Cobbler		
Sugar	4 lb. 4 oz.	12 lb. 12 oz.
Flour	12 oz.	1 lb. 4 oz.
Canned red tart pitted cherries	19 lb. 8 oz.	58 lb. 8 oz.

Ingredients Work Sheet for Serving 300 People

1. Active dry yeast

2½ oz. for 100 people

$2\frac{1}{2} \times 3 = \frac{5}{2} \times \frac{3}{1} = \frac{15}{2} = \boxed{7\frac{1}{2}\text{ oz.}}$

2. Melted Oil

8 oz. for 100 people

8 oz. X 3 = 24 oz.

16 oz. = 1 lb.

24 oz. = $\boxed{1\text{ lb. }8\text{ oz.}}$

3. Nonfat dry milk

7 oz. for 100 people

7 oz. x 3 = 21 oz.

16 oz. = 1 lb.

21 oz. = $\boxed{1\text{ lb. }5\text{ oz.}}$

4. Sugar

8 oz. for 100 people

8 oz. × 3 = 24 oz.

16 oz. = 1 lb.

24 oz. = $\boxed{\text{1 lb. 8 oz.}}$

5. Flour

7 lb. 4 oz. for 100 people

$$\begin{array}{r} \text{7 lb. 4 oz.} \\ \times \quad 3 \\ \hline \boxed{\text{21 lb. 12 oz.}} \end{array}$$

6. Frankfurters

12 lb. 8 oz. for 100 people

$$\begin{array}{r} \text{12 lb. 8 oz.} \\ \times \quad 3 \\ \hline \boxed{\text{36 lb. 24 oz.}} \end{array}$$

16 oz. = 1 lb.

36 lb. 24 oz. = $\boxed{\text{37 lb. 8 oz.}}$

7. Butter or Margarine

1 lb. for 100 people

$$\begin{array}{r} \text{1 lb.} \\ \times \ 3 \\ \hline \boxed{\text{3 lb.}} \end{array}$$

8. Cooked Pared Potatoes

21 lb. 12 oz. for 100 people

$$\begin{array}{rr} 21 \text{ lb.} & 12 \text{ oz.} \\ \times & 3 \\ \hline 63 \text{ lb.} & 36 \text{ oz.} \end{array}$$

16 oz. = 1 lb.

63 lb. 36 oz. = $\boxed{\text{65 lb. 4 oz.}}$

9. Flaked Crushed Cereal

11 lb. 4 oz. for 100 people

$$\begin{array}{rr} 11 \text{ lb.} & 4 \text{ oz.} \\ \times & 3 \end{array}$$

$\boxed{\text{33 lb. 12 oz.}}$

10. Salt

$2\frac{3}{4}$ oz. for 100 people

$\frac{11}{4} \times \frac{3}{1} = \frac{33}{4} = \boxed{8\frac{1}{4} \text{ oz.}}$

11. Head Lettuce

4 lb. for 100 people

$$\begin{array}{r} 4 \text{ lb.} \\ \times 3 \\ \hline \end{array}$$

$\boxed{\text{12 lb.}}$

12. Chopped Spinach
1 lb. for 100 people
1 lb.
x 3
3 lb.

13. Chopped Onion
12 oz. for 100 people
12 oz.
x 3
36 oz.
16 oz. = 1 lb.
36 oz. = 2 lb. 4 oz.

14. Cucumbers Pared
6 lb. for 100 people
6 lb.
x 3
18 lb.

15. Radishes Sliced
2 lb. for 100 people
2 lb.
x 3
6 lb.

16. Sugar

4 lb. 4oz. for 100 people

$$\begin{array}{r} \text{4 lb. 4oz.} \\ \times \quad 3 \\ \hline \boxed{\text{12 lb. 12oz.}} \end{array}$$

17. Flour

12oz. for 100 people

$$\begin{array}{r} \text{12 oz.} \\ \times\ 3 \\ \hline \text{36 oz.} \end{array}$$

16 oz. = 1 lb.

36 oz. = $\boxed{\text{2 lb. 4oz.}}$

18. Canned Red Tart Pitted Cherries

19 lb. 8oz. for 100 people

$$\begin{array}{r} \text{19 lb. 8oz.} \\ \times \quad 3 \\ \hline \text{57 lb. 24oz.} \end{array}$$

16oz. = 1 lb.

57 lb. 24 oz. = $\boxed{\text{58 lb. 8oz.}}$

PERSONAL AND PUBLIC SERVICE OCCUPATIONS

The Chef/Cook

Activity 3

Materials and Equipment Needed

1. Terms and Tools Explanation Sheet
2. Cassette #3 from the Chef/Cook OCCUPAC

Tape Script

Hello, I am glad to have another opportunity to talk to you. Every occupation has its own unique vocabulary and terminology. This is certainly true in my occupation as a cook/chef. Recipes are written in a certain way and I must know how to read recipes. For example, today I was following a recipe for an Italian specialty--spaghetti. According to the recipe I was to grate Parmesan cheese. The term grate means to rub on a grater that separates the food in various sizes of bits and shreds. In order to follow the recipe correctly it was important that I understand the term grate, recognize a grater, and know how to operate a grater.

Today you are going to do several things which help you learn some of the terminology that I must know when I read recipes. All cooks, regardless of whether they cook in large amounts or small amounts must know these terms. In Activity 4 you will play a game called Recipe

Rummy. However, before you can play the game you have to know some cooking terms and tools.

Take the sheets of information which say "Terms and Tools Used by Cook/Chef" out of the OCCUPAC. Look at these sheets. The cooking terms are in the left column. Their definition is in the middle column and the tool used with the term is in the right column. You should turn off the recorder while you are studying the terms. When you finish studying the terms, turn the recorder on again so you can listen to the remainder of the tape.

TERMS AND TOOLS

USED BY COOK/CHEF

In the left column are terms which cook/chefs must know how to use because these terms are used in recipes. The terms are defined in the middle column. The tools that match the terms are in the right column. Whenever the cook/chef sees a cooking term in a recipe he must know which tool to use. For example, the first term is baste. The tool the chef uses to baste is in the right column and it is called a baster.

TAKEN FROM RECIPE	DEFINITION	TOOL
Baste chicken	Moisten foods during cooking with pan drippings, water or special sauce to prevent drying or to add flavor.	Baster
Brush top of bread with melted butter	Cover evenly with butter to add flavor and soften crust	Pastry brush
Chop nuts	To make nuts into many fine, small pieces	Chopper
Cook to 180°	Internal temperature is raised to specified degree	Meat thermometer
Cut up chicken	Kitchen shears are used to cut the chicken into separate pieces	Kitchen shears
Decorate cake	To make scrolls, flowers, etc. on cake	Cake decorator

TAKEN FROM RECIPE	DEFINITION	TOOL
Drain water from noodles	The noodles are separated from the water	Colander
Fill muffin pan with biscuit mix	A baking pan with several indentions to shape or form the batter into a small round form	Muffin pan
French fry potatoes	To cook potatoes in hot fat	French fryer
Mash potatoes	To prepare potatoes so that they can be combined with milk, butter, and seasoning to form a fluffy mixture	Masher
Measure ½ cup sugar	A ½ cup is used. Sugar is leveled off through the use of a knife	Dry measuring cup
Measure ¼ cup milk	A liquid measure is used whereby the measures are marked by lines. A liquid can not be leveled off by a knife, that is why it is important to see the lines	Liquid measuring cup
Measure 3 oz. butter	Ounces and pounds are used for measuring if someone is on a diet or in order to cook in large quantities	Scale
Melt chocolate over hot water	Two pans are used. Hot water is placed in one pan and chocolate is placed in a pan on top of the hot water. This prevents the chocolate from sticking to the pan	Double boiler

TAKEN FROM RECIPES	DEFINITIONS	TOOL
Place dough into cookie press	Push inward and cookie is formed	Cookie press
Place dough on cookie sheet	A thin, long, wide pan ideal for baking many cookies at one time	Cookie sheet
Mix flour, eggs, milk and sugar	Combine ingredients	Mixmaster
Pare apples and slice thin	Remove core and seeds	Paring knife
Pour batter into 10 inch tube pan	A 10 inch tube pan allows the heat to circulate evenly	10 inch tube pan
Pour jello into shaped pan	To give jello a special form	Mold
Roll dough 1/8 inch thick	To flatten dough 1/8 inch thick	Rolling pin
Sift flour and salt	To place flour and salt in a sifter to make the ingredients very fine	Sifter
Strain berries from juice	Strain juice into container to keep. Berries remain in strainer to discard	Strainer
Three scoops lime sherbet	Ice creams and sherbets are formed into even shapes	Ice cream scooper
Whip egg whites	To beat rapidly to incorporate air and produce expansion	Beater

Now, you should be ready to do Activity 4 which is Recipe Rummy. Three players are needed for Recipe Rummy so make sure two of your classmates have listened to Tape 3 before you start playing Recipe Rummy. The printed directions for Recipe Rummy are in the OCCUPAC. Read these directions before you start playing Recipe Rummy.

ERIC

Now, you can rewind the tape, turn off the tape recorder, and place the tape and slides back in their correct place.

PERSONAL AND PUBLIC SERVICE OCCUPATIONS

The Chef/Cook

Activity 4

Materials and Equipment Needed

1. Deck of Recipe Rummy cards

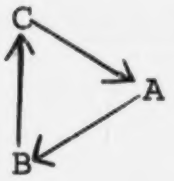
RECIPE RUMMY DIRECTIONS

RECIPE RUMMY is a card game which calls for you to match cooking terms and tools. In order to play the game three people are needed so you will need two of your classmates to play the game with you. Before RECIPE RUMMY can be played all three players should have listened to Activity 3.

There are 48 cards in the deck. One person will shuffle and deal the cards. The dealer will start dealing the cards to the person to the left of him. Each player should have 16 cards. These cards are fanned out in the player's hand so that the players can not see one another's cards. Then all three players lay down their pairs in front of them. Each pair should be laid down separately and not in a pile. The object of the game is to match a term and tool correctly. The terms and tools are those that a chef would find in a recipe. For example, a perfect match of two cards would be a card with a picture of a grater and a card which reads grate ½ cup Parmesan cheese.

You must remember to match a term and a tool.

To play the game, follow this diagram:



The three players are A, B, and C. A is the dealer. The person to the left of A is B. B goes first and draws a card from the person to the left of him, C. If B draws a card that matches one he is holding in his hand, he should lay the pair down immediately. Then C draws from the person to the left of him, A. If C draws a card to make a pair, he lays the pair down immediately. Then A draws from B and the same pattern is followed.

The first person to lay down all of his cards is the winner. However, the winner's cards should be checked with the "Terms and Tools Used by Cook/Chef" explanation sheet to make sure he has matched the cards correctly. If the cards are found to be matched incorrectly, he is disqualified. Then, the mismatched cards are dealt by the disqualified player to the other two players. The other two players will continue playing RECIPE RUMMY.

APPENDIX C

INSTRUCTIONAL GUIDE

FOR

7-9 OCCUPACS

prepared by

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FOREWORD

The question of whether or not occupational information has a place in the elementary school and the junior high school is no longer a debatable one. Child development data reveals that aptitudes, attitudes, values, interests, and needs--vital elements involved in the eventual choice of an occupation--are influenced by the types of learning experiences provided for the child.

Specific suggestions for "what to do" when exposing children to occupational information are more debatable. Today's educator is looking for more than mere "how to do it" cookbook-type solutions. He knows the problems facing the schools today are too complex to be solved by magical panaceas, such as new teaching machines, or simple revisions of administrative or instructional procedures. Today's educators are looking for ideas solidly grounded in basic and applied scientific research--ideas which, while practical and capable of implementation are not simplistic--ideas of intelligent men and women, designed to be discussed and put into practice by other intelligent men and women.

At the onset of Phase I of the OCCUPAC Project, the OCCUPAC Project Staff determined that the results of existing research on child development and career development theory should be thoroughly reviewed before work could begin on the development of occupational information materials. The staff

also determined that once this theory was applied to the development of occupational information materials, the products of their efforts should be pilot tested in a laboratory school setting and then field tested in a variety of public school settings.

The OCCUPAC project staff was aware that because of the diverseness of occupational information, ways had to be developed which would not be wholly dependent upon the occupational information knowledge possessed by the teacher or counselor. No matter how energetic, how resourceful, or how interested the classroom teacher or counselor might be in presenting occupational information, no one teacher or counselor can serve as an encyclopedia of information on occupations.

Thus, an approach emerged which for the most part uses an individual instruction approach. The heart of the individual instruction approach are the packages of occupational information materials known as OCCUPACS. The instructional guide will elaborate further on the OCCUPACS.

The project director is most grateful to Dr. Donald Gill and the entire instructional staff at Buzzard Laboratory School, Eastern Illinois University, Charleston, Illinois. Their spirit and cooperation throughout the development and pilot testing of the OCCUPACS were appreciated. The Decatur, Lombard, Marshall, and Martinsville, Illinois Public Schools served as field testing sites.

The cooperation of these school systems made possible the production of a product which was tested in a cross section of localities and environments.

Marla Peterson, Director
OCCUPAC Project

I. THE OCCUPACS

Definition and Overview

An OCCUPAC contains a set of objects, selected and organized with respect to basic activities within the expectations of a particular occupation. Occupation is defined as the chief means by which a person earns his living.

Each OCCUPAC is intended to be a self-contained, self-directing set of activities, with no implications in terms of "pre-requisites" or "required" topics. However, all the OCCUPACS are inter-related by means of four organizing principles, which may be stated as objectives for the materials:

1. To provide exposure to information and activities regarding specific occupations.
2. To provide opportunity for the development of certain generalizations (concepts) regarding occupations.
3. To encourage the growth of self-awareness with respect to talents, skills, knowledge, interests.
4. To integrate occupation generalizations and the several facets of self-awareness.

Each OCCUPAC includes implications for all of these principles, but, as a rule, Principles 1 and 2 are emphasized in sets intended for use with primary children; Principles 2 and 3 for intermediate children; and Principles 3 and 4 in the junior high. The OCCUPAC Model on page C-2 illustrates the organizing principles for the K-3, 4-6, and 7-9 grade levels.

What is an OCCUPAC?

- An OCCUPAC is a package of multisensory materials that presents occupational information at a level which can comprehended by K-9 students.

- Among the multisensory materials contained in the OCCUPACS are: slides, tapes, the "sounds" of work, equipment and materials used in various occupations, decision-making simulation activities, puppets, and "props" of all kinds from the REAL WORLD OF WORK.

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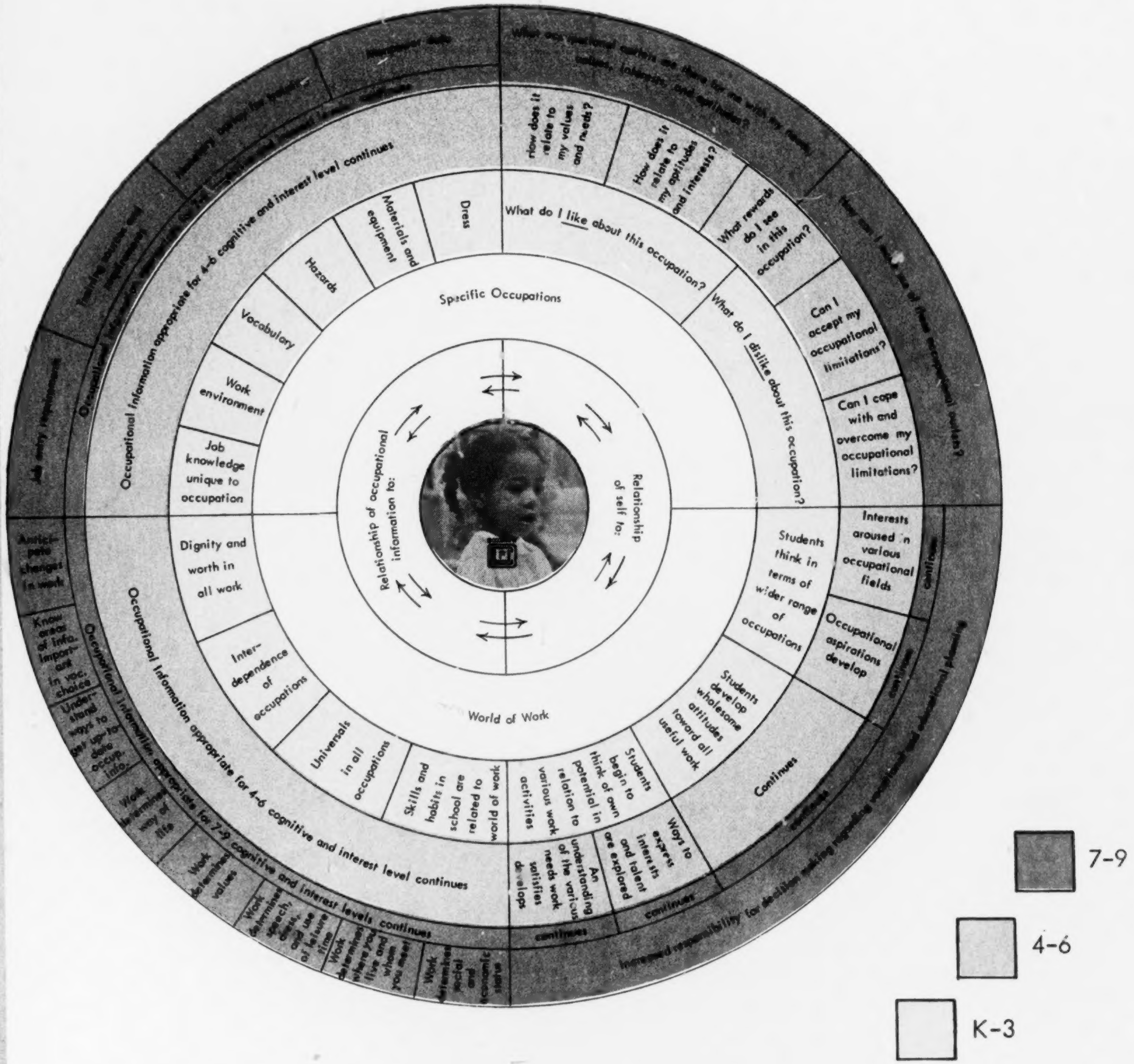
■ OCCUPAC ■

OCCUPAC –
a concept devoted to the
INDIVIDUALIZING of K-9 OCCUPATIONAL INFORMATION
learning materials. . . . .


Relationship of self to:
Relationship of occupational information to:
Specific Occupations
World of Work
What do I like about this occupation?
What do I dislike about this occupation?
Dress
Materials and equipment
Hazards
Vocabulary
Work environment
Job knowledge unique to occupation
Dignity and worth in all work
Inter-dependence of occupations
Universals in all occupations
Skills and habits in school are related to world of work
Students begin to think of own potential in relation to various work activities
Students develop wholesome attitudes toward all useful work
Students think in terms of wider range of occupations
How does it relate to my values and needs?
How does it relate to my aptitudes and interests?
What rewards do I see in this occupation?
Can I accept my occupational limitations?
Can I cope with and overcome my occupational limitations?
Interests aroused in various occupational fields
Occupational aspirations develop
Continues
Ways to express interests and talent are explored
An understanding of the various needs work satisfies develops
Occupational Information appropriate for 4-6 cognitive and interest level continues
Occupational Information appropriate for 7-9 cognitive and interest levels continues
What occupational outlets are there for me with my needs, values, interests, and aptitudes?
Job entry requirements
Anticipate changes in work
Know areas of info. important in voc. choice
Understand ways to get up-to-date occup. info.
Work determines way of life
Work determines values
Work determines speech, dress, and use of leisure time
Work determines where you live and whom you meet
Work determines social and economic status
continues
Increased responsibility for decision making regarding vocational and educational planning
7-9
4-6
K-3

Supported by funds from the Division
of Vocational and Technical
Education, State of Illinois

in cooperation with
The Center for Educational Studies,
Eastern Illinois University

Photographs taken at
Buzzard Laboratory School,
Eastern Illinois University—OCCUPAC
development and pilot testing site.

OCCUPAC

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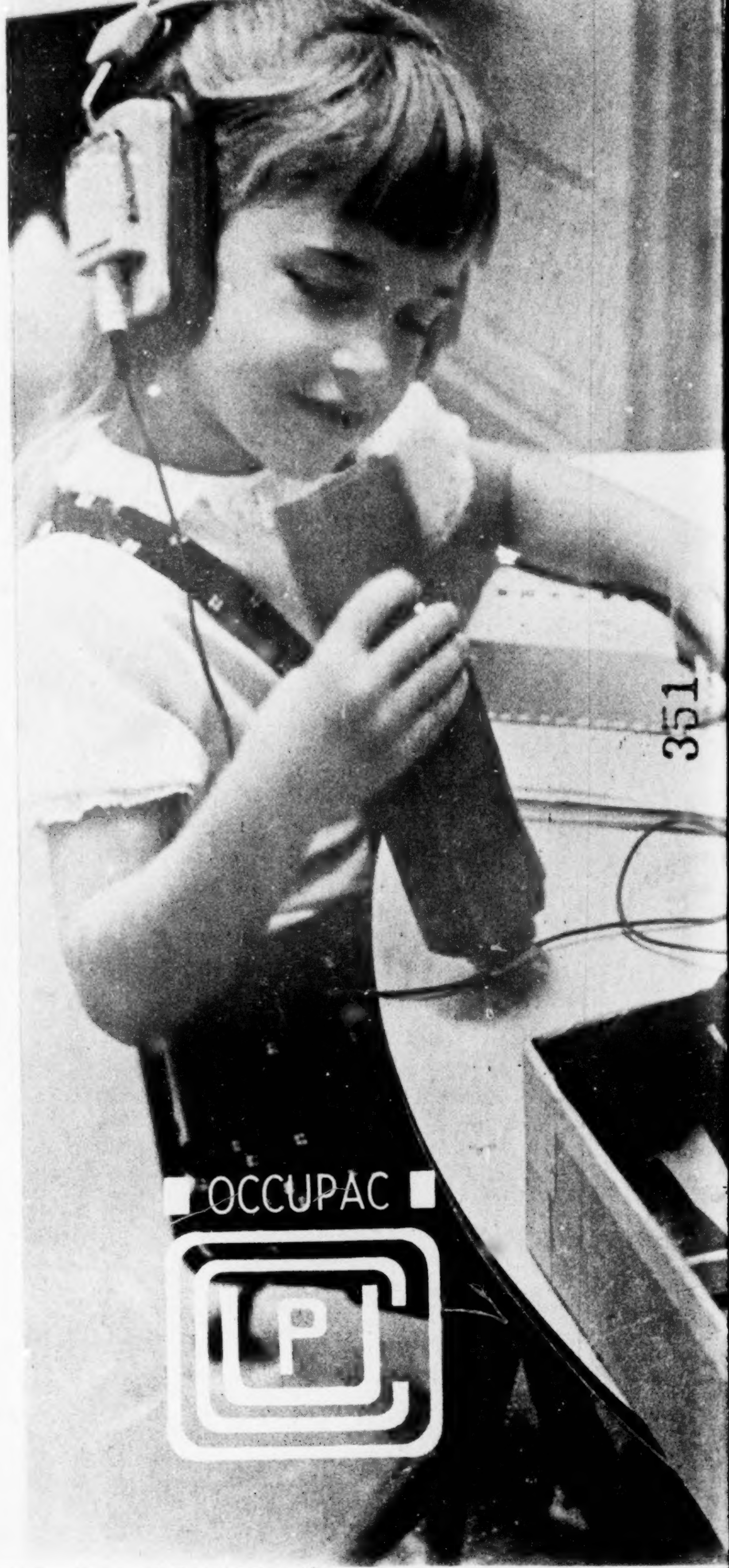

The interaction of a student with the objects in an OCCUPAC is guided by taped and/or printed directions. In all cases, the directions are intended to be practically self-sustaining with as little need for live teacher[1] involvement as possible. This is not intended to limit the teacher's involvement in occupational information activities. Conversely, it is hoped that student and teacher interest in the OCCUPACS will generate other related classroom activities. Field trips, interviews, role playing, and all the other techniques which can be used for presenting occupational information should be used.

Children learn by seeing, talking, listening, and doing. Seeing, talking, and listening have generally been included in traditional approaches for presenting K-9 occupational information. However, doing--the very thing to which career information readily lends itself--has been neglected. Doing, then is one of the major components of the OCCUPACS. The OCCUPACS are based on a multi-media approach. Tapes, slides, "sounds" of work, simulated work activities, and "props" of all kinds from the REAL WORLD OF WORK have been assembled into the OCCUPACS.

Philosophy of Use

The OCCUPAC Program, as it is presently being developed, is intended to become a regular part of any school's curriculum. As the actual interaction with the materials assumes individual pupil differences in interests and abilities, so the administrative decisions regarding the placement and purposes of the OCCUPACS depends upon the local context in which the school personnel of a particular locality operate. The OCCUPACS have been specifically designed to allow for flexibility of placement within any school's curriculum. Thus, the OCCUPACS might be used as the central core for an occupational information program, as supplements for certain aspects of school subjects or certain aspects of the school guidance program, as "sideline" exploratory materials, or as bases for expansion into further study or activities. Physical placement of the OCCUPACS can be in a self-contained classroom, a media center, or a library.

---

[1] "Teacher," as used in this report, refers to anyone who is guiding an instructional activity. Thus librarians, counselors, media center directors, etc. are included in this comprehensive definition of "teacher".

It is not expected that all children in a given classroom will work with every OCCUPAC available. Subject to teacher control, those children who choose to work with an OCCUPAC will do so with no requirements for sequence (between OCCUPACS) or for having "done" all of the available OCCUPACS.

Phase I Evaluation Data

The one objective in terms of child behavior at this stage of the Program's development is whether or not the child is able to complete the activities he attempts.

The chief concern is whether or not the contents of a particular OCCUPAC can provide children with a ready opportunity for interaction with its materials. As different OCCUPACS are developed and tested, it is expected that adjustments in their contents may be necessary. Consequently, during this period of production, the developers were particularly concerned with the "behavior" of the OCCUPAC rather than any specific or substantial changes in the child. If most children "got through" the activities of an OCCUPAC with a minimum of confusion, then the objectives for the pilot testing and field testing stages will have been met.

However, evaluation of whether the types of behavior specified in the OCCUPAC model were occurring was a consideration in the overall evaluation plan. Teacher observations and student interviews were conducted. It was evident from post-test interviews that the world-of-work vocabulary of students who had used the OCCUPACS had increased.

The most striking improvement in child behavior was noted when children were asked the question, "How would you go about finding out what worker X (perhaps an electrician) does?" In pre-test interviews the average number of ways named by seventh through ninth grade students was 2.2. Six weeks later in post-test interviews this average increased to 4.1. Although this was an increase, no conclusions can be drawn from this data. Among other reasons, the increase could have been caused by maturation of the child. A research design, using control groups would provide more meaningful data. However, this type of research was not part of the Phase I contract for the OCCUPAC Project.

One thing can be said with certainty: Students like the OCCUPACS. Essays written about the OCCUPACS by students who had used the OCCUPACS reflected a very positive attitude toward the OCCUPACS. Field testing teachers also reported high student enthusiasm for OCCUPAC activities.

Although the intent of the OCCUPAC program is to produce the kinds of behaviors specified in the OCCUPAC model, the developers of the OCCUPACS realize that a child restructures the universe according to his own perceptions. The OCCUPACS cannot change previous experiences but they can expose children to new experiences.

The ultimate objective of a successful OCCUPAC Program is for the typical ninth grader to be able to relate intelligently his own capacities and interests to whatever occupation(s) which at that time would tend to offer a substantial basis for serious consideration as an eventual means for his earning a living.

II. THE 7-9 LEARNER AND THE OCCUPAC APPROACH

Through exposure to the OCCUPACS, the 7-9 learner will be presented with the following concepts which are related to his career development:

Occupational Information as It Relates to Specific Occupations

1. Each occupation has certain expectations related to dress which are associated with the occupations.
2. Each occupation has its own materials and equipment.
3. Each occupation has its unpleasant as well as its pleasant tasks and this is determined by the individual worker.
4. Each occupation attracts people with certain interests and needs.
5. Each occupation has its own vocabulary.
6. Each occupation has its own working conditions and environment.
7. Each occupation has job knowledge that is unique to that occupation.
8. Each occupation has job entry requirements.
9. Each occupation involves training and training sources are available.
10. Each occupation has training requirements which may involve monetary outlay.
11. Each occupation may have few or many "openings" and this can be determined by manpower data.

Occupational Information as It Relates to the World of Work

12. There is dignity and worth in all useful work.
13. Occupations are dependent upon each other.
14. A pleasing personality is important in all occupations.

15. Both men and women can work in each occupation.

16. Skills and habits learned in school are related to the world of work.

17. Changes will occur in the world of work.

18. Some information is vital to choice of an occupation.

19. There are ways to obtain up-to-date occupational information.

20. Work helps determine way of life.

21. Work helps determine values and vice versa.

22. Work helps determine speech, dress, and use of leisure time.

23. Work helps determine where you live and whom you meet.

24. Work helps determine social and economic status.

The Self as It Relates to Specific Occupations

25. An individual's values and needs influence choice of a specific occupation.

26. An individual's aptitudes and interests influence choice of a specific occupation.

27. An individual expects certain rewards from an occupation.

28. An individual must learn to accept his occupational limitations as these limitations relate to specific occupations.

29. An individual must learn to cope with and overcome occupational limitations as these limitations relate to specific occupations.

30. An individual must ask, "What occupational outlets are there for me with my needs, values, interests, and aptitudes?"

31. An individual must ask, "How can I make use of these occupational outlets?"

The Self as It Relates to the World of Work

32. An individual's interests continue to be aroused in various occupational fields but the fields begin to narrow.

33. An individual continues developing occupational aspirations.

34. An individual continues developing wholesome attitudes toward all useful work.

35. An individual explores ways to express interests and talents.

36. An individual develops an understanding of the various needs that work satisfies.

37. An individual accepts increased responsibility for decision making regarding vocational and educational planning.

III. INSTRUCTIONS TO THE TEACHER FOR USE OF THE 7-9 OCCUPACS

(Individual Instruction OCCUPACS)*

Suggestions for Introducing the Audio-Visual Equipment

There are two basic pieces of audio-visual equipment which are used with the OCCUPACS: (1) the hand-operated slide viewer in which a stack of slides can be inserted and (2) the cassette tape recorder.

Each teacher will have his own preference for ways to introduce this equipment; however, the following suggestions might be helpful:

General Suggestions

1. Have a station in a room where the slide viewer and the tape recorder are within easy access of the students. A table surface with enough space for the OCCUPAC material is desirable.
2. Provide paper and pencils at the work station.

Suggestions for Introducing the Slide Viewer

1. Show the students how to open up the "drawers" on each side of the slide viewer.
2. Show the students how to pick up a stack of slides and place them in the viewer.
3. Emphasize that the stack of slides should be placed in the viewer so that Number 1 is on the bottom. The slides will be in correct position if the student is able to read the numbers.
4. Show the students how to remove the stack of slides from the viewer.

---

*Several of the 7-9 OCCUPACS involve group activities. The "Overview" of each OCCUPAC tells whether the OCCUPAC involves individual or group activities.

5. Show the students how to close up the viewer when they are finished.

6. Tell the students that the first lesson always involves the viewing of slides. The tape will allow them time to put the slides in the viewer. However, it would be a good idea to place the slides in the viewer before starting the tape for Lesson 1.

7. Let the students practice steps 1-6.

Suggestions for Introducing the Tape Recorder

1. Show the students how to insert the cassette in the recorder.

2. Show the students how to operate the "play," "stop," and "rewind" buttons.

3. Instruct the students that after they have listened to a tape they must rewind the tape so that tape is ready for the next person to use. Show the students how the rewind button should be held down until the tape stops.

4. Show the students how to remove the cassette from the recorder.

5. Let the students practice steps 1-4.

Placement of OCCUPACS in the Curriculum

1. OCCUPACS for the most part are self-instructional. Thus, after students have learned how to use the audio-visual equipment and after a work station has been provided, OCCUPACS can be easily and readily assimilated into the existing curriculum.

2. OCCUPACS should be left in the classroom or instructional materials center as long as there is student demand for them. Some teachers may wish to have one OCCUPAC available at a time. Other teachers may wish to have several OCCUPACS available so students can choose the OCCUPAC they wish to explore.

3. There is no particular sequence in which the OCCUPACS should be used.

4. Within any one OCCUPAC, the lessons are generally constructed so that one lesson is not dependent upon another.

5. OCCUPACS are for the most part self-instructional. However, some of the 7-9 OCCUPACS may have activities which are group activities.

6. Tape scripts on each OCCUPAC and a brief overview of each OCCUPAC are provided. The overview will tell the teacher if a group activity is inherent in the OCCUPAC.

7. It is strongly recommended that after students have completed all activities in an OCCUPAC that the first activity (the slide-tape presentation) be repeated by the students.

IV

Contents of the OCCUPACS

BUSINESS, MARKETING, AND MANAGEMENT OCCUPATIONS

Computer Technology

Overview

There are two activities in the Computer Technology OCCUPAC. The first activity is a slide-tape presentation on the work of the programer, the key punch operator, the data processing manager, the console operator, the systems analyst, the tape librarian, and other support personnel.

In Activity 2 the flow of information through the data processing cycle is explained. Students get to work with and examine some of the materials and documents that computer personnel use in their daily work.

Both activities are designed to be used on an individual instruction basis and taped directions are provided for both activities.

BUSINESS, MARKETING, AND MANAGEMENT OCCUPATIONS

Computer Technology

Activity 1

Materials and Equipment Needed

1. Tape recorder
2. Cassette Tape # 1 from Computer Technology OCCUPAC
3. Slide Viewer
4. Set of 10 slides from Computer Technology OCCUPAC

Vocabulary

1. accounting machine
2. collator
3. computer
4. console operator
5. data cards
6. debugging
7. deck
8. diagram
9. disc
10. electronic data processing
11. flow chart
12. interpreter
13. key punch operator
14. print out
15. program
16. program cards
17. programer
18. reproducer
19. sorter
20. systems analyst
21. tape
22. tape librarian
23. terminal

Tape Script

Hello!

One of the fastest growing industries of the 1960's was the computer industry. Another term often used to mean the same thing as computers is the term electronic data processing. Basically, this term means that information is processed rapidly through the use of high speed machines. The use of computers is expected to increase rapidly through the 1970's and 1980's. Computers are being adapted to new uses almost daily and many more business firms will be using them. Already, government agencies, insurance companies, banks, wholesale and retail businesses, transportation and public utility companies and manufacturing firms use computers. These are some of the places where you might find employment if you decide to follow a career associated with computers.

Let's take a look at some of the equipment that might be found at the site of a computer installation. Please insert a slide each time you hear this sound. (beep) Insert the first slide. There are two false impressions that are sometimes projected when people talk about computers. Some people think that people who work around computers just press buttons and everything happens magically. These people are over-simplifying the jobs of people who work with computers. The other false impression is that a great deal of mathematical skill is needed for all jobs associated with the computer industry. It is true that mathematical ability does help in certain computer related jobs but many jobs do not require high-level mathematical ability.

We've already talked about the fact that computers are designed to process information more rapidly than can be done by hand. However, someone has to tell the computer exactly what to do. (beep) Here you see a computer programer looking at step-by-step instructions he has prepared which will tell the computer what to do. These instructions are called a program.

Every problem processed in a computer first must be carefully analyzed so that exact and logical steps for its solution can be worked out. In some cases this is done by a programer; in others, it may be done by a specialist known as a systems analyst. The systems analyst usually works on larger and more complicated programs. There is some printed information in the OCCUPAC which will give you more information on the work of a systems analyst. If you look at this printed information you will see that a college education is usually required of a systems analyst whereas a high school diploma with some special training is required of a programer.

In business offices, computers are frequently used to bill customers. The computer programer who writes the program for billing customers often starts his work by determining exactly what information must be used to prepare the necessary documents and by determining the exact form in which this information is entered on company records. He may ask himself things like, "On what date should I instruct the computer to bill the customer?" "Should I tell the computer to subtract customer payments from the amount owed?" Each step has to be thought through carefully.

Sometimes a programer will make a flow chart or a diagram showing the order in which the computer must perform each operation and for each operation he prepares detailed instructions. These instructions when relayed to the computer tell the machine exactly what to do with each piece of information in order to produce each business document. The programer is also responsible for preparing an instruction sheet for the computer operator to follow when the program is run on the computer. The computer operator is often referred to as the console operator and we will talk more about his work later.

The final step in programing is debugging--that is, checking on whether the instructions have been correctly written and will produce the desired information. Often this is done by having a trial run made in the computer.

However, before a trial run can be made, each instruction that was on the program must be punched on cards. The computer is able to read the information which was punched on the cards. (beep) Here you see a key punch operator punching cards. The key punch operator usually punches two kinds of cards--the program cards which tell the machine what to do and the data cards which contain information to be processed by the computer.

For example, some computer programs have been written to figure out your school grade averages. The key punch operator would prepare two kinds of cards--the program cards which tell the computer how to figure your grade point average and the cards which have your grades punched on them.

The keyboard on a key punch machine looks much like the keyboard on a typewriter except that the keys serve different purposes. (beep) Typewriting courses are a must for anyone desiring to be a key punch operator. Key punch operators must enjoy doing routine work and must be able to work under pressure. Key punch operators should have knowledge of more than the key punch machine, since many of them are called upon to operate other computer-related equipment, like card sorters and accounting machines.

What has happened to the program that the programer wants to debug? After the key punch operator has punched the program on cards, these program cards along with the instruction sheet for the console operator are taken to the computer. A batch of cards is known as a deck.

The program deck is placed in a tray on the computer. (beep) Sometimes one of the cards in the program deck will tell the computer that it must retrieve or get information which has been stored on tapes. The card will tell the computer on which tape the information is stored. The console operator has to get the tape from storage and place it on the computer. (beep) The console operator knows which tape to get because the number of the tape is printed on the instruction sheet he received from the programer. In large operations where there is a great deal of information stored on many tapes a tape librarian may be in charge of locating the correct tape. Further information on the work of a tape librarian is on the printed information in the OCCUPAC. Openings for tape librarian are rather infrequent and often someone already employed by the company is selected for this job.

The console operator is usually responsible for placing the tape on the computer. Computers differ from manufacturer to manufacturer. Some computers use information which has been stored on discs like the one you see in this picture. (beep)

The console operator has to know how to operate all the switches and buttons on the computer. (beep) A console operator really has to know how to do many things. It helps if he also knows how to punch cards. Sometimes when he is helping test or debug a program he may need just one or two cards punched. He should know how to go to the key punch and punch out the card. There are other pieces of equipment that the console operator should know how to use: the sorter which helps sort cards, and the reproducer which can duplicate cards very rapidly. There is some wiring involved in the operation of machines like the reproducer. The console operator should know how to wire the reproducer board so that the reproducer will do the work that he desires.

Console operators have to enjoy getting along with people because they frequently have to work with programers, key punch operators and other computer personnel. They should have the ability to work under pressure and they should expect some rush jobs.

A job is not finished and the program we have been testing cannot be finished until we get a print out. (beep) Here you see a print out or the piece of paper which contains the eventual information that we want coming out of the computer. You see, it wasn't all magic was it? A lot of people were involved in getting this information processed. Some people may have been involved which we still have not talked about.

Some people operate machines which do less sophisticated operations than computers but they are still important machines because they help sort out and tabulate data which could eventually be fed into a computer. The names of some of these machines are: sorter, reproducer, interpreter, collator, and accounting machines. All of these machines need people to operate them. We call people who operate machines like these unit record equipment operators. These people should enjoy using machines and should be willing to do some routine work.

Of course, we couldn't have a computer or data processing operation function smoothly without someone to manage the operation. There is need for a data processing manager in every computer installation. The data processing manager must not only know all the equipment that is used in the operation but he must know how to schedule computer time and use, supervise employees, and help analyze the flow of data and information in the computer operation. Generally, at least three years of experience in computer operations is necessary before a job can be secured as a data processing manager. You may want to read the printed information in the OCCUPAC which will tell you more about the work of a data processing manager.

Soon many of us will be asking computers to supply us information although we may not work directly in a computer operation. This is a computer terminal (beep). A terminal is a station where computers can be asked questions and the computer can supply answers. Some colleges already have terminals like the one you see here located in many different places on the college campus. Students can use the keyboard to type questions they wish to ask the computer. The computer will provide the answer on a screen like the one you see in this picture.

Of course, not just any question can be asked. Information has to be stored in the computer which will help answer the question which was asked.

This is an example of how a student might wish to use the computer. All of the grades he has received thus far in his college courses might be stored in the computer.

Suppose that he is applying for a job and the application blank asks for his grade point average. He could go to the computer and ask it to figure his average.

This helps illustrate the fact that there are many uses for computers. All of the ways we can use computers have still not been explored. Would you like to be in an industry that is still growing? Do you like to work with all kinds of information? Do you enjoy solving problems and doing puzzles? If so, some occupation related to computers might interest you. In activity 2 you will have an opportunity to look at some of the pieces of information and data that people who are in computer occupations work with. In the OCCUPAC there are also some additional facts relative to salary, education required, etc. for the various occupations we have discussed. You might enjoy reading some that interest you.

Many new words were introduced on this tape so you might want to listen to this tape again.

When you have finished, make sure you have placed the slides back in their proper place. Rewind the tape, turn off the recorder, and place the tape back in its proper place.

BUSINESS, MARKETING, AND MANAGEMENT OCCUPATIONS

Computer Technology

Activity 2

Materials and Equipment Needed

1. Tape recorder
2. Cassette tape #2 from Computer Technology OCCUPAC
3. IBM System/360 Assembler Coding Form
4. Punched card program deck
5. Punched card data deck
6. Computer printout

Vocabulary

1. Coding sheet
2. Source document

Tape Script

Hello!

Today you are going to work with and examine some of the materials that computer personnel work with when they use the computer to help them process data quickly. Stop the recorder whenever you need some time to complete the instructions which are given on this tape.

Take the following materials from the OCCUPAC: the IBM System/360 Coding Form--this is a green and white form which has number and letters written on it in pencil, (pause) the punched cards which have "Program Deck" written on them, (pause) the punched cards which have "Data Deck" written on them, (pause) and the computer printout--the printout is the set of green and white folded sheets which have holes punched along the left side.

Look at the coding sheet. Remember, this is the green and white form with the penciled instructions written on it. This form has been prepared by a programer and it is the computer program. Each line contains step by step directions which the computer follows. The directions are written in a special computer language called Fortran. Fortran is not the only computer language. Computer programs sometimes use a language such as COBOL or GOTRAN. Each language consists of a set of symbols that the computer can understand. This program is a program which will be used to compute the average of five test scores.

After the programer prepares the program, the program is sent to a key punch operator. The key punch operator punches out a card for each line that you see on the program. Look at the set of punched cards which have "Program Deck" written on them. Look at the top of the punched cards and find the information which is printed on the top of the cards. There should be one punched card for each line that is on the computer program. Take some time now to compare the punched cards with the computer program. If the cards are out of sequential order you may want to take time to put them back in order.

Turn off the tape recorder while you are doing these activities.

The program cards which the key punch operator prepares from the program are taken to the computer and fed into the computer by the console operator. This deck of program cards enables the computer to perform the necessary calculations for figuring the average of five test scores.

However, before the average of five scores can be figured, each separate score has to be fed into the computer. Therefore, a card must be punched for each score. Look at the set of punched cards which have "Data Deck" written on them. The first card is an instruction card for the computer but the 5 cards following the instruction card are cards which have test scores punched on them. You may have wondered, "How did the key punch operator know what scores to punch on the cards?" She probably had a stack of tests with the score written on the top. She punched the cards directly from the test. The test was her source document. In other words, it is the document or piece of paper from which she got the information to place on the cards. Each card has one score.

These punched data cards are taken to the computer and fed into the computer by the console operator. The computer then processes the cards and figures out the average score. It is able to do this because the program deck tells it how to figure the average.

Now look at the green and white computer printout.

The first several pages of the printout consists of identifying data. You will also find the program printed on one of the pages. However, the information you are really interested in is the average of the five scores. You should find a line which says the average of the five scores is 80.20. Take some time now to look more closely at the printout. You will not understand everything that is printed on the program. However, if you were trained in programing you would know what each letter and number means. Turn off the recorder while you are examining the program.

In activity 1 and 2 you have learned that there are many computer-related occupations--jobs like programer, systems analyst, key punch operator, tape librarian, computer console operator, unit record equipment operators, and data processing managers. Perhaps you would like to learn more about the education needed for such jobs, the personal characteristics desired of employees, salary, and promotional possibilities. Information on these topics is included in the OCCUPAC. You might want to spend some time reading this information.

Now, rewind the tape, turn off the recorder, and place the tape back in its proper place.

OCCUPAC FACTS

Computer Technology

JOB: Computer Console Operator*

Duties:

1. Operate
   - a. Computer
   - b. High Speed Printer
   - c. Sorter
   - d. Interpreter
   - e. Reproducer
   - f. Collator
2. Punch Cards
3. Wire
   - a. Collator Board
   - b. Reproducer Board
4. Test Sample Routines on Computer

Supervision Required:

Once a Day

Education:

Minimum: High School

Desired: High School with some Post High School

General Courses (High School):

1. General Mathematics
2. Advanced Mathematics
3. English
4. Social Science

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*Statistics taken from: Curricular Implications of Automated Data Processing for Educational Institutions, Final Report. Project No. BR5-0144, F. Kendrick Bangs, Principal Investigator, September, 1968.

Education (continued):

Business Courses (High School):
1. Bookkeeping
2. Business Mathematics
3. Typing

General Courses (Post High School):
1. General Mathematics
2. English
3. Advanced Mathematics
4. Social Science
5. Oral and Written Communications
6. Logic and Philosophy
7. Psychology

Business Courses (Post High School):
1. Data Processing Theory
2. Principles of Accounting
3. Data Processing Application
4. Introduction to Business
5. Introduction to Systems
6. First Year Accounting

Experience:

Minimum: 3 Months to 1 Year

Desired: 6 Months to 18 Months

Personal Characteristics:

1. 90% are men. Women in manufacturing and transportation are in greater proportionate numbers to total than men in same industries.

2. Jobs attained through promotions and advertising.

3. Computer operator should be able to get along with people and should have the ability to work under pressure.

4. The computer operator enjoys his work and desires to remain in it.

5. Computer operators feel their education is adequate.

6. Computer operators like the job type best; they like rush jobs least.

7. Hobbies are participation in sports and reading. They enjoy puzzles.

8. The median age is 27 years.

Promotional Probabilities: Average to High

Promoted to Programmer, Supervisor

Education has some effect on promotion.

Salary:

Median:	$478
Large Installations	560
Medium or Small	462
Men:	$496
Women:	412
High School:	$482
Post High School Degree:	500

OCCUPAC FACTS

Computer Technology

JOB: Data Processing Manager*

Duties:

1. Operate
    a. Computer
    b. Sorter
    c. High Speed Printer

2. Confer regarding
    a. Computer
    b. Key Punch

3. Supervise
    a. Computer Personnel
    b. Auxiliary Equipment Operator
    c. Key Punch

4. Analyze
    a. Flow of Data
    b. Systems

5. Schedule Computer Time and Use

Supervision Required:

Only as Needed

Education:

Minimum: High School

Desired: College Graduate

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*Statistics taken from: Curricular Implications of Automated Data Processing for Educational Institutions, Final Report. Project No. BR5-0144, F. Kendrick Bangs, Principal Investigator, September, 1968.

Education (continued):

General Courses (High School):
1. General Mathematics
2. Advanced Mathematics
3. English
4. Oral and Written Communications
5. Psychology

Business Courses (High School):
1. Bookkeeping
2. Business Mathematics
3. Typing

General Courses (Post High School):
1. General Mathematics
2. English
3. Social Science

Business Courses (Post High School):
1. Data Processing Equipment
2. Accounting Principles
3. Business Mathematics
4. Principles of Management

Management Recommendations:
1. Introduction to Systems
2. Statistics
3. Introduction to Business
4. Principles of Management
5. Intermediate Accounting
6. Principles of Finance

Experience:

Minimum: 36 months

Desired: 36 months

Personal Characteristics:

1. 93 per cent are men.

2. Jobs attained through promotions, manufacturers' recommendations, ads, private employment agencies.

3. Data Processing Manager should be logical thinker and have the ability to get along with people.

4. Most feel education was adequate.

5. The data processing manager likes best the problem-solving and challenge factors of his job.

6. Hobbies are hunting, fishing, participation in sports, and reading. Puzzles are enjoyed.

7. The median age is 33 years.

Promotional Probabilities: Average to Little or None

Promoted to Supervisor

Education has a definite effect upon promotion.

Salary:

Median: $741

OCCUPAC FACTS

Computer Technology

JOB: Key Punch Operator*

Duties:

1. Punch Cards
2. Verify Punched Cards
3. Operate
    a. Interpreter
    b. Sorter
    c. Reproducer
    d. Collator
    e. Accounting Machine
    f. Typewriter
4. Supervise Key Punch Operators
5. Clerical Duties

Supervision Required:

Several Times Daily

Education:

Minimum: High School

Desired: High School

General Courses (High School):
1. General Math
2. Advanced Math
3. English
4. Key Punch Machine
5. Typing

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*Statistics taken from: Curricular Implications of Automated Data Processing for Educational Institutions, Final Report. Project No. BR5-0144, F. Kendrick Bangs, Principal Investigator, September, 1968.

Education (continued):

6. Data Processing Theory
7. Unit Record
8. Oral and Written Communications
9. Algebra
10. Psychology
11. Logic and Philosophy
12. Social Science

Business Courses (High School):
1. Introduction to Business
2. Record Management
3. Office Management
4. Typing
5. Bookkeeping
6. Office Procedures
7. Business Math

General Courses (Post High School):
1. General Math
2. English
3. Psychology

Business Courses (Post High School):
1. Data Processing Equipment
2. Typing
3. Calculating Machines
4. Accounting Machines
5. Business Math

(Shorthand, Business English and Report Writing were least helpful)

Experience:

Minimum: 3 months or less

Desired: 6 months to 1 year

Personal Characteristics:

1. 98% are women.

2. Jobs attained through schools, advertising, and private employment agencies.

3. Like routine work and be able to work under pressure.

4. Enjoys her work and desires to remain in it.

5. Generally feel their education adequately prepared them for their jobs, especially those who had training in data processing.

6. Like best the type of job they are doing; dislike having to do rush jobs.

7. Hobbies are arts and crafts, participation in sports, and reading. Puzzles are "okay."

8. The median age is 25 years.

Promotional Probabilities: Low

Promoted to Unit Record Operator, Supervisory and Computer Operators.

Education has little or no effect upon promotion.

Salary:

Median:	$340
Men:	$450
Women:	$340
Less than 1 year experience	Less than $300

OCCUPAC FACTS

Computer Technology

JOB: Programmer*

Duties:

1. Preparing Programs
2. Making Flow Charts
3. Debugging Programs
4. Coding for Programming
5. Making Block Diagrams
6. Analyzing Data Flow
7. Analyzing Systems
8. Operating the Computer
9. Making Test Sample Routines
10. Punching cards

Supervision Required:

Only as Needed

Education:

Minimum: High School
Junior College or Technical School

Desired: College Graduate

General Courses:

1. General Math
2. Advanced Math
3. English
4. Oral and Written Communication

Business Courses (Post High School):

1. Data Processing Equipment
2. Business English

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*Statistics taken from: Curricular Implications of Automated Data Processing for Educational Institutions, Final Report. Project No. BR5-0144, F. Kendrick Bangs, Principal Investigator, September, 1968.

3. Accounting Principles
4. Business Math and Statistics
5. Data Processing Applications
6. Introduction to Systems
7. First Year Accounting
8. Introduction to Business
9. Second Year Accounting
10. Principles of Management

Experience:

Minimum: 3 months to 1 year

Desired: 1½ to 2 years

Personal Characteristics:

1. 82% are men; 17.4% are women.

2. Jobs attained through promotions, private employment agencies, advertising and schools.

3. Programmer should be logical thinker and have the ability to get along with people.

4. The programmer enjoys his work and desires to remain in it; his attitude is not regulated by whether he had data processing work or not.

5. Programmers feel their education is adequate.

6. The programmer likes best the problem-solving factor of his job.

7. Hobbies are participation in sports and reading. Puzzles are enjoyed.

8. The median age is 29 years.

Promotional Probabilities: Average to High

Promoted to Chief Programmer, Systems Analyst, Supervisor, and Data Processing Manager; some are promoted to Project Director.

Education has a definite effect upon promotion.

Salary:

Median: $626
(Slight tendency for larger installations to pay higher salaries)

Men: $642
Women: 557

Trend shows programmers with total amount of 4-6 years of data processing experience earn median salary of $718; those with programming experience only earn median salary of $683.

OCCUPAC FACTS

Computer Technology

JOB: Systems Analyst*

Duties:

1. Analyze systems and flow charts
2. Make flow charts
3. Make block diagrams
4. Prepare programs
5. Debug programs
6. Code for programming
7. Test sample routines
8. Confer regarding
    a. Computer
    b. Key Punch

Supervision Required:

Only as Needed

Education:

Minimum: College Degree

Desired: College Degree

General Courses (High School):

1. General Math
2. Advanced Math
3. English
4. Oral and Written Communications
5. Algebra
6. Logic

General Courses (Post High School):

1. General Math
2. English

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*Statistics taken from: Curricular Implications of Automated Data Processing for Educational Institutions, Final Report. Project No. BR5-0144, F. Kendrick Bangs, Principal Investigator, September, 1968.

3. Psychology
4. Advanced Math
5. Social Science

Business Courses (High School):

1. Business Math
2. Bookkeeping
3. Introduction to Business

(Least helpful were typing and shorthand; some said bookkeeping)

Business Courses (Post High School):

1. Accounting Principles
2. Statistics
3. Data Processing Equipment

(Least helpful were personnel management, finance, and marketing)

Management Recommendations for Business Courses:

1. Introduction to Systems
2. Principles of Management
3. Records Management
4. Statistics
5. Introduction to Business
6. Second-year Accounting

(Not many responses indicating finance and advanced accounting courses needed)

Experience:

Minimum: 12 to 36 months

Desired: Over 3 years

Personal Characteristics:

1. 92% are men.

2. Jobs attained through promotion, ads, and private employment agencies.

3. Systems Analysts are logical thinkers and have the ability to get along with people.

4. Most enjoy their jobs and wish to remain; this attitude differed little whether or not they had data processing training.

5. Systems Analysts feel to a certain extent that their education is adequate; 30% felt inadequately prepared by schools.

6. The Systems Analyst likes best the problem-solving factor of his job.

7. Hobbies are things requiring physical movement and reading; he enjoys puzzles.

8. The median age is 33 years.

9. The programming languages most frequently used: Autocoder, COBOL and machine language.

Salary:

Median:	$810

(Salary ranges of $700-799 and $800-899 most often reported. These two ranges, $700-900 together, covered 58% of Systems Analysts.)

Men:	$820
Women:	750

(Men earned within the entire scale, $400-1000; women earned within the scale of $500-900. Twenty-four men earned $1000 or more; no women.)

High School:	$790
Post High School:	790
Degree:	869

1-10 Years	$700-900
10+ Years	800-899

(There is no general trend indicating higher salary ranges as years worked for company increases.)

OCCUPAC FACTS

Computer Technology

JOB: Tape Librarian*

Duties:

1. Operate Data Processing Machines
    a. Key Punch
    b. Sorter
    c. Typewriter
    d. Interpreter

2. Handle Clerical Tasks
    a. File Register Tape
    b. Verify Punched Cards

3. Confer Regarding Computer

Supervision Required:

Only as Needed

Education:

Minimum: High School

Desired: High School

General Courses (High School):
1. General Math
2. Advanced Math
3. English

Business Courses (High School):
1. Typing
2. Introduction to Business

General Courses (Post High School):
Sample too small to be meaningful

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*Statistics taken from: Curricular Implications of Automated Data Processing for Educational Institutions, Final Report. Project No. BR5-0144, F. Kendrick Bangs, Principal Investigator, September, 1968.

Business Courses (Post High School):
Sample too small to be meaningful

Management Recommendations:
1. Oral and Written Communications
2. Algebra
3. Social Science

Experience:

Minimum: 3 months or less

Desired: 6 months to 1 year

Personal Characteristics:

1. 65% are women.

2. Jobs attained through promotion, advertising, and friends of the employee.

3. Tape librarians should like detail work, should be a perfectionist, and should be accurate and orderly.

4. The tape librarian enjoys her work and desires to remain in it.

5. Tape librarians feel education is adequate; majority indicated no data processing training prior to present job.

6. The tape librarian likes best the variety of the job; she likes least rush jobs.

7. Hobbies are reading, participation in sports, some arts and crafts. Puzzles are "okay" or enjoyed.

8. The median age is 28 years.

Promotional Probabilities: Low to Average

Promoted to Computer Operators or Programmers

Education has some effect on promotion.

Salary:

Median: $425

Monthly Salary:

Median:	$413 (without computers) 433 (with computers)
Men:	Average approximately $90 more per month than women; women show more time with company.
High School:	$380
College:	$450
10+ Years:	$520
Top Salary:	$1000

OCCUPAC FACTS

Computer Technology

JOB: Unit Record Equipment Operator*

Duties:

1. Operate Data Processing Machines
   a. Sorter
   b. Reproducer
   c. Interpreter
   d. Collator
   e. Accounting Machine

2. Wire Boards
   a. Collator Board
   b. Reproducer Board
   c. Interpreter Board
   d. Accounting Machine Board

Supervision Required:

Several Times Daily

Education:

Minimum: High School

Desired: High School

General Courses:
1. General Math
2. Advanced Math
3. English
4. Social Science
5. Oral and Written Communications
6. Algebra

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*Statistics taken from: Curricular Implications of Automated Data Processing for Educational Institutions, Final Report. Project No. BR5-0144, F. Kendrick Bangs, Principal Investigator, September, 1968.

Education (continued):

Business Courses (High School):
1. Typing
2. Business Math
3. Introduction to Business
4. First Year Accounting
5. Introduction to Systems

(Shorthand noted as least helpful; also, typing, introduction to business)

Business Courses (Post High School):
1. Data Processing Equipment
2. Accounting Principles
3. Intermediate Accounting
4. Business Math

(Typing and Business English least helpful; also, introduction to business and income tax accounting)

Management Recommendations:
1. Unit Record Equipment
2. Wiring Boards
3. Data Processing Concepts
4. Key Punch

Experience:

Minimum: 3 months or less

Desired: 6 - 12 months

Personal Characteristics:

1. Over 63% are men; about 36% are women.
2. Jobs attained through promotions, private employment agencies, ads, and schools.
3. Tab Operator showed inclination to operate machines and emotional stability.
4. Most enjoy their work and desire to remain in it.
5. Tab Operators feel their education is adequate.
6. Hobbies are hunting, fishing, household activities, and sports, both participation and spectator. Puzzles are "okay" and enjoyed.
7. The median age is 28 years.

Promotional Probabilities: Average to High

Promoted to Computer Operator or Programmer

Education has some effect on promotion.

PERSONAL AND PUBLIC SERVICE OCCUPATIONS

Food Technology

Overview

There are two activities in the Food Technology OCCUPAC. The first activity is a slide-tape presentation on the work of the dietician, the restaurant manager, the cook, the chef, the waiter or waitress, the host or hostess, and the busboy.

In Activity 2 the students are to read directions for presenting a role playing activity. Group direction is necessary because ten students participate in the activity. Students will need time to organize and gather their materials and to present the activity. Many of the props needed for the role playing activity are included in the OCCUPAC. Since students role play the occupations that are included in the slide-tape presentation, it is advisable that students complete Activity 1 before they start working on Activity 2.

PERSONAL AND PUBLIC SERVICE OCCUPATIONS

Food Technology

Activity 1

Materials and Equipment Needed

1. Tape recorder and earphones
2. Cassette Tape #1 from Food Technology OCCUPAC
3. Slide viewer
4. Set of 27 slides from Food Technology OCCUPAC

Vocabulary

1. banquet
2. busboy
3. dietician
4. employee
5. host
6. hostess
7. occupation
8. restaurant chain
9. salary
10. social security card

Tape Script

Hello, I'm Jack Turner, the manager of the Picadilly Room at the White Horse Inn. I'd like to tell you about the occupations of the employees who work at the White Horse Inn. Before I tell you about their occupations, I'd like to describe my work to you. Please check to see that the slides are in the proper order, then place them in the viewer. Be ready to insert a new slide each time you hear this sound. (beep)

Let's see. First of all, let me describe the Picadilly Room. (beep) It is a large dining room which seats approximately 175 people. Breakfast, lunch, and dinner are served, and there are banquet facilities for luncheons, weddings, graduations, and parties. I make arrangements for the banquet room. (beep) In fact, I spend a great deal of time talking on the telephone to people who are interested in our banquet facilities. People inquire about what foods can be served and the prices. If they are interested, they will usually come and see the banquet room. We decorate our banquet rooms according to the occasion. (beep) Today there is a business meeting luncheon scheduled. The room has been arranged the way the chairman of the meeting has requested.

As I said, I'm the restaurant manager. I've been working at the restaurant many years. When I was attending college, I worked part-time at the restaurant. My major was institutional management. At that time I worked as a busboy. The experience was valuable, because I learned a great deal about the operation of a restaurant. When I graduated from college, the manager of the White Horse Inn was retiring. The owner asked me if I wanted to manage the restaurant. I jumped at the chance, and here I am.

I work between 12-14 hours each day. The long hours don't bother me because I enjoy my work. But I do have to work weekends and most holidays, and that is when I would like to be home with my family. I start work at 10:00 in the morning and work until 10:00 or midnight each night.

Managing the Picadilly Room consists of a variety of duties. When an employee quits, I must submit an ad in the local papers' "Help Wanted" section for someone to fill that position. I interview each prospective employee. In an interview I describe the job available. When I hire a person I look for healthy people, (of course, they must be punctual for the interview) cleanliness, and people who are pleasant.

Aside from hiring people, I dismiss employees. At first I felt horrible about dismissing someone. But then I realized that the success of the Picadilly Room depended upon the workers. If they are continually late or if they don't do their work well, the restaurant may lose customers.

I'm sure you have noticed the music playing in the background. This music is piped in throughout the restaurant. I select the music to be played and try to choose music which will appeal to young and old people.

(beep) I order the furnishings for the restaurant. Sometimes new chairs, additional dishes, glasses, silverware, and kitchen equipment are needed. I also determine when the carpet and drapes need cleaning. I arrange for the laundering of tablecloths and napkins. Of course, I also order all of the food that is needed.

The manager of a restaurant supervises the host/hostess, waiter/waitress, busboy, chef and cook to make sure they are doing their work.

Tilly is the full-time hostess/cashier for the Picadilly Room. Let me tell you about her job.

Tilly began working at the Picadilly Room three years ago as a waitress. That year, the hostess moved out of the area. I'll never forget how excited Tilly was when I said to her, "Tilly, you're always on time, you do your work well, your uniform is always clean and neat. I think you'd be a good hostess. Would you like to be the hostess of the Picadilly Room?" She was really excited and happy. She felt good knowing she had done her job as waitress well. Also, becoming a hostess meant she would be paid more than a waitress. As a waitress Tilly didn't mind wearing a uniform each day, but she does enjoy wearing different clothes each day. She sometimes wears a pants suit. Since the hostess is the first and last person in the restaurant with whom the customer comes into contact, it is important that she make a favorable impression. Tilly must dress stylish and have her hair done neatly.

(beep) The hostess greets each customer with a smile and she tries to remember the names of regular customers. Customers feel more at home if Tilly says "Hello, Mr. Andre" rather than "Hello".

The hostess also seats the customers at a table or booth and presents them with a menu. Sometimes a customer will request a specific table, perhaps one that is near a window. Tilly always tries to fill requests.

After the hostess shows customers to their table, then the waitress or waiter takes over. Christine is one of the waitresses and I will tell you about her work shortly after I tell you a few more things about the hostess' work.

Tilly is also the cashier. (beep) Her last contact with the customer is totaling their bill on the cash register, receiving their payment, and giving them change.

(beep) This is Christine, one of our waitresses. After a customer is finished looking at a menu, she asks if she can take his order. Christine writes the order on the restaurant check pad which she keeps in her uniform or apron pocket. She writes the order in a shortened, abbreviated form. There is no special form; each waiter or waitress writes in a way that he or she understands or is quickest. Of course, the chef and cooks must be able to understand what she has written. It certainly would be hectic if the cooks prepared food different than the order requests. When taking an order, Christine must know the prices. She doesn't have time to look through a menu and locate a price. The prices must be written clearly so the cashier has no trouble reading them.

(beep) After she has taken an order, the waitress takes the top copy to the kitchen. This is the cook's copy. In the kitchen there is an extended piece of string with clothes pins attached to it. The waitress clips the order to the clothes pin. In this way the orders are kept in sequence. The cook knows which order should be filled next. Some restaurants use a more modern piece of equipment to which orders are attached but we still use our good old clothespin and string.

The waitress also makes a carbon copy of each order. The carbon copy is for the customer. The customer presents his copy to the cashier.

(beep) When the orders have been prepared, Christine serves the customers. She checks the kitchen a number of times to see if the food is ready so that the hot food doesn't get cold and the cold food doesn't get warm. Christine carries the food on a tray because the tray enables her to carry more dishes. A waitress always serves from the left side of the customer and takes away from his right side.

Sometimes Christine has a grumpy customer. He may complain about everything. "My roast beef is rare, my coffee is too strong, my potatoes are cold, where's my check." Regardless of how Christine feels, she must be polite.

Her motto is good service. You see, a waitress does not get paid too much by the hour. Much of her weekly salary depends upon the tips she receives. Customers are to tip a waitress 15% of the bill. So if a customer's bill is $3.00 he would tip the waitress $.45. The tips are left on the table. After a customer leaves, Christine picks up her tip. If the service is not good, a customer won't tip as well, maybe only 5 or 10%. Some customers will not tip at all if the service isn't good.

When a new waitress starts working for us, I interview her after she has been with us a week to see how she feels about her work. Often I get comments like this. "My feet ache and ache, because I have been on them all day." Waitresses work eight hours a day or forty hours a week. Many discover the secret of non-aching feet; one pair of specially made shoes which have good support and cushioned soles.

(beep) Here is the waitress's right arm, Steve, the busboy. Steve is a junior at Grover Cleveland High School, and he works in the Picadilly Room part time. Believe it or not, he had to learn much before he started working. He became sixteen this year, and as soon as he turned sixteen he applied for a social security card. The card is needed for employment. Many students already have their social security card before they reach age 16. Steve is planning on going to Junior College, and he wants to start saving money. As soon as Steve received his social security card, he began looking in the paper for job ads. He saw an ad in the paper for a part-time busboy at the Picadilly Room. Our phone number was listed, and he immediately called.

He talked to me, I suggested that he come in for an interview, and he agreed.

You can imagine that Steve was a bit nervous about his interview, after all it was his first. He informed his parents, and they gave him some ideas of what happens in an interview. The night before his interview, Steve polished his shoes and made sure his clothes were pressed. And he even got a haircut.

Finally, the day came! He talked with me and filled out an application. I interviewed two other boys but decided that Steve could have the job. I called him and told him he had the job and that he had to wear a shirt, tie, and dark colored pants. The next day he started working. (beep) Being a fellow, he did not know the proper way to set a table. After an explanation from Tilly and some practice tries he was ready to begin.

(beep) Steve clears tables (beep) and carries the soiled dishes on a tray into the kitchen. (beep) Then he puts a clean tablecloth on the table and sets the table. He also pours water and coffee. He takes note as to when water glasses and coffee cups are empty. I guess this is why Christine calls him her right arm.

Steve's job works out great for him. He works Saturday and Sunday morning and Wednesday and Thursday evenings. His working hours fit right into his school and social schedule. He is able to play basketball for the school. He's found that he must budget his time in order to keep up with his studies. Steve liked to sleep late on Saturday mornings. He starts work at 7:00 on Saturday mornings, and sometimes he'd rather stay in bed and sleep. But he realizes that he has a responsibility, and if he plans to have a job, there are certain sacrifices he has to make. Sleeping late on Saturday is one of them.

As you see all the customers here in the restaurant, you may wonder, "Who plans the menus?" That is the job of the dietician. The dietician plays an important part in the success of a restaurant. There are a number of White Horse Inns. Our headquarters are in Detroit. (beep) At our central headquarters, there are dieticians who plan the menus for the restaurants in our chain. It is the duty of the dietician to plan nutritious and attractive meals. (beep) Here you see a male dietician looking in a recipe file. (beep) The dietician is up to date on new kitchen facilities and foods. The dietician and restaurant manager work together. Once a month, a dietician visits the Picadilly Room. (beep) She brings me information on kitchen facilities and informs the chef and cooks how to prepare new foods that will be put on the menu. (beep) Part of the dietician's job also consists of testing new products and recipes for our kitchen.

The dietician is a college graduate who has majored in Dietetics, Food and Nutrition, or Institutional Management. Besides working for restaurant chains, dieticians are also needed in hospitals, colleges and universities, and in many industries. Dieticians, like all the other workers we have seen today, are needed wherever a great number of people are fed.

(beep) Last of all, I would like to tell you about the work of Victor, our chef. Often times I will receive a letter from a customer for whom the White Horse Inn has serviced a luncheon or banquet. The customer will compliment the service and state that the food was out of this world. (beep) Victor is proud of his cooking.

The chef is in charge of the cooks. He makes sure they do their work. The cooks are usually specialized. (beep) For instance, Betty is our baker. She prepares all of the homemade desserts. (beep) Sally is our salad maker. She makes beautiful salads which are colorful.

I supervise Victor. I make sure that the kitchen is clean at all times. (beep) But there is nothing to worry about as long as Victor is in the kitchen. His kitchen is always sparkling.

The chef and cooks must be healthy. In fact, the White Horse Inn requires that the chef and cooks have health certificates stating that they are free from disease.

Victor and the cooks have to be able to read the orders so they prepare the right foods. Measurement is important, too. Customers would not like food that is overly seasoned with garlic salt, for instance.

Victor makes sure that the cooks arrange food on plates attractively. In this way, food is more appealing to the customer.

Victor brings to my attention kitchen facilities which need repairs or should be ordered.

You might be interested in looking at some of the unusual features of a chef's kitchen. (beep) The refrigerators are different from the one you have in your home. (beep) Here you see Victor inside the refrigerator. Rather than storing the food in many small refrigerators we store food in a few large ones. (beep) Look at this beater! This large sized beater enables us to make more cakes, mashed potatoes, etc. at one time.

It is important that the chef and cooks work fast during rush hours. Rush hours are breakfast, lunch and dinner. Customers do not enjoy waiting an hour for their meal. During the rush hours, the kitchen is a fast moving and busy place.

Victor does his job well. It is good to know I can depend upon his supervising the kitchen. His delicious cooking has drawn more and more customers to the Picadilly Room.

Be sure to read Activity 2. It is in the OCCUPAC. I'm sure you will enjoy it. It's your chance to be a SUPER STAR.

You might also enjoy looking at the printed information in the OCCUPAC which gives information on salaries, training required, etc. for each of the occupations you saw in this slide-tape presentation. There are also some magazines on restaurants that you might like to read or browse through.

Please rewind the tape, stop the tape recorder, and place the tape back in its proper place.

PERSONAL AND PUBLIC SERVICE OCCUPATIONS

Food Technology

Activity 2

As junior high school students, you are becoming more and more acquainted with the world of work. Perhaps you are thinking about working part-time when you are in high school.

Although reading and listening are necessary, they are not the only ways to learn. You are able to learn about occupations by participating in an activity that a job requires. That is why we have developed these SUPER STAR work scenes.

This is your chance to be a SUPER STAR, because you make up your own lines, and do your own acting; there is no script.

Since you have listened to the tape, you should be aware of the duties of the dietician, restaurant manager, waiter/waitress, busboy, host/hostess, cashier, and the chef.

Which occupation would you like to act out? Before you decide, here is a list of the parts needed for the "Rare, Medium, or Well Done?" work scene:

2 cooks
1 restaurant manager
1 waiter or waitress

1 busboy
1 chef
1 dietician
1 host or hostess
2 customers

After you have decided which part you would like to play, you may want to look at the other information on Food Technology Occupations which is in the OCCUPAC and the "Helpful Hints" which start on page C-65. The "Helpful Hints" will help you play the role you have chosen.

Perhaps you may want to learn more about an occupation by using library materials or looking through the magazines which are in the OCCUPAC.

Also, to help you act out the SUPER STAR work scenes, you will find the following materials in the OCCUPAC:

Banquet Schedule Book
Cassette tapes with music
Food models
Menus
Money
Napkins
Paper
Pencils
Place settings
Restaurant checks
Sales tax guide
String with clothes pins
Table tops
Tray

Although you will decide what to say and do, these SUPER STAR scenes serve as a guideline to the activity:

RARE, MEDIUM, OR WELL DONE?

Scene 1

What's on the Menu Today?

Super Stars: 1 dietician
1 chef
1 restaurant manager

Scene 2

The Customer Arrives

Super Stars: 2 customers
1 host or hostess
1 busboy (must set table before guests arrive)

Scene 3

The Customer is King

Super Stars: 2 customers
1 waitress or waiter
1 busboy
2 cooks
1 chef

Scene 4

The Satisfied Customer

Super Stars: 2 customers
1 waitress or waiter
1 host or hostess

Scene 5

The Satisfied Customers Inquire about Banquet Facilities

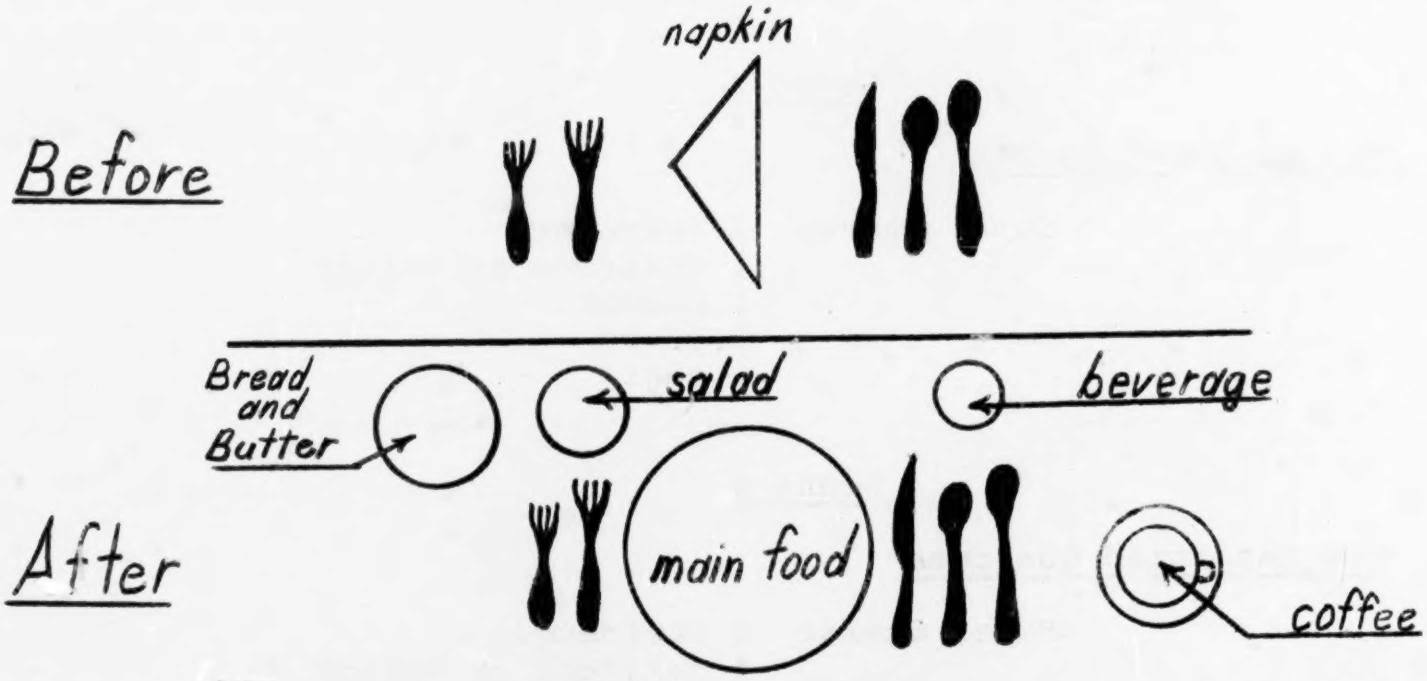
Super Stars: 1 host or hostess
1 restaurant manager
2 customers

After the "parts" are selected, your teacher or counselor may let you practice. When the presentation of "Rare, Medium, or Well Done?" is finished, the group may want to present "Rare, Medium, or Well Done?" again, but this time change parts.

Helpful Hints . . . BUSBOY

1. Set table top with silverware and napkins.
2. Clear table when customers have left.
3. Carry soiled dishes (food models) to the kitchen on the tray.

SAMPLE PLACE SETTING


napkin
Before
Bread and Butter
salad
beverage
After
main food
coffee

Helpful Hints . . . HOST/HOSTESS

1. Greet customers
2. Seat customers
3. Present menu
4. Receive customer's payment and give correct change
5. Refer customer inquiries about banquet facilities to restaurant manager

Helpful Hints . . . CUSTOMERS

1. Be seated by hostess
2. Read menu
3. Order from menu
4. Don't be afraid to complain if you're not satisfied with the service you are getting.
5. Receive check
6. Tip waitress--15% of total bill
7. Pay cashier
8. Check your change

Helpful Hints . . . DIETICIAN

1. Design ways to arrange food on plate so that it is attractive
2. Plan a menu
3. Look through the food magazines and show manager new equipment that would be good to have in the restaurant.
4. Advise cook on new food or product that you found in the food magazines which are in the OCCUPAC.

Helpful Hints . . . COOK

1. Read order that the waitress or waiter has brought to the kitchen and clipped to the string with the clothes pin.
2. Gather necessary food (cardboard food models) for waiter and waitress.

Helpful Hints . . . CHEF

1. Chef meets with dietician and restaurant manager to help plan the menu.
2. Supervises food preparation.

Helpful Hints . . . RESTAURANT MANAGER

1. Make sure busboy, chef, waiter, waitress, host/hostess, cashier are doing their job correctly.
2. Determine music to be played in restaurant.
3. Explain prices and dates available for banquet to customer. Use the banquet schedule book.

Helpful Hints . . . WAITER/WAITRESS

1. If customer looks as though he has finished reading the menu, take his order. If the customer orders roast beef, make sure you ask him if he would like it rare, medium, or well done. Then remove menu. Order is taken on the restaurant check in abbreviated writing. Write legibly so cook can read order. Price must be written next to the food ordered. Since there is no cash register, the waitress will have to total the bill. Don't forget sales tax. See chart. The top copy of the order goes to the kitchen on the string, and the bottom copy is the customer's.
2. When food is ready in the kitchen, place it on the tray and carry it to the customer's table. Serve from

the left, and take away from the right.

Food is served in the following manner:

Fruit cocktail, juice or soup is served first. Place in center of place setting.

When customer looks as though he is done, ask if he has finished, then take away dish.

Next serve salad and follow the same procedure.

Then serve the main meal and follow same procedure.

Ask if customer would like dessert. You may have to give him a menu, or he will ask you what desserts there are.

Give customer his totaled check.

Helpful Hints . . . CUSTOMER INQUIRING ABOUT BANQUET ROOM

1. Inquire about a graduation party to be held in the banquet room.
2. Ask about date available, foods, prices, and decorations.

OCCUPAC FACTS

FOOD TECHNOLOGY

JOB: Busboy

DUTIES:

1. Clear tables
2. Set table
3. Pour water
4. Clean dining room

EDUCATION:

Minimum: High school student (On-the-job training)

Experience:

Minimum: None

Desired: Experience in school cafeteria, etc. helpful

Personal Characteristics:

1. Cleanliness

2. Good health

Salary:

$1.01-$2.19 per hour

OCCUPAC FACTS

FOOD TECHNOLOGY

JOB: Chef

DUTIES:

1. Supervise cooks
2. Inform restaurant manager of necessary kitchen repairs and supplies needed
3. Create new dishes

EDUCATION:

Minimum: High School

Desired: 2 years college with courses in restaurant cooking

Experience:

Minimum: None (On-the-job training)

Desired: On-the-job training in a cooperative work experience program

Personal Characteristics:

1. Health certificates stating that chef is free from disease is required.

2. Cleanliness

3. Ability to work under pressure during busy hours

4. Able to organize and direct kitchen operations

5. Physical stamina

6. Superb sense of taste and smell

Salary:

$2.53 - $4.36 per hour

Head chefs may earn up to $15,000 annually
Chefs with national reputations make more than $25,000 per year

OCCUPAC FACTS

FOOD TECHNOLOGY

JOB: Cook

DUTIES:

1. Prepare meals

EDUCATION:

Minimum: High school

Desired: 2 years college with courses in restaurant cooking

Experience:

Minimum: None (On-the-job training)

Desired: Some experience with quantity cooking--preferably in a cooperative on-the-job training program

Personal Characteristics:

1. Cleanliness
2. Capable of working under pressure during busy hours
3. Keen sense of taste and smell
4. A health certificate is required; stating that one is free from disease

Salary:

$1.65 - $3.87 hourly

Head cooks may earn up to $15,000 annually

OCCUPAC FACTS

FOOD TECHNOLOGY

JOB: Dietician

DUTIES:

1. Maintains high standards of sanitation and safety
2. Plans nutritious meals
3. Plans menus
4. Keeps up to date on new foods and kitchen equipment
5. Experiments with new foods and meals
6. Communicates regularly with manager of food establishment and other personnel

EDUCATION:

Minimum: College Degree (Bachelor's Degree with a major in foods and nutrition, institutional management, or dietetics)

Desired: Master's Degree

Courses:

1. Foods and nutrition
2. Institution management
3. Chemistry
4. Bacteriology
5. Physiology
6. Mathematics
7. Psychology
8. Sociology
9. Economics

Experience:

Minimum: An internship lasting 12 or 18 months or 3 years

Desired: Completion of internship

Personal Characteristics:

1. Ability to manage, supervise and work well with others

Salary:

$7500 with no experience and a Bachelor's Degree

$8462 with no experience and a Master's Degree

Experienced dieticians earn between $9500-14,000

OCCUPAC FACTS

FOOD TECHNOLOGY

JOB: Host, Hostess, Cashier

DUTIES:

1. Greets customers
2. Seats customers
3. Presents customer with a menu
4. Receives payment from customer

EDUCATION:

Minimum: High School

Desired: High School

Courses (High School):

1. Home Economics
2. Salesmanship

Experience:

Minimum: None (On-the-job training)

Desired: Many started as a waitress or waiter

Personal Characteristics:

1. Tactful

2. Gracious

3. Ability to work cash register and count change

4. Cleanliness

5. Well-dressed

Salary:

$1.52 - $3.00 per hour

OCCUPAC FACTS

FOOD TECHNOLOGY

JOB: Restaurant Manager

DUTIES:

1. Interviews employees
2. Arranges banquets
3. Determines cost of labor and other costs
4. Supervises waiter, waitress, host, hostess, busboy, and cashier
5. Orders furnishings for restaurant
6. Must be familiar with all jobs

EDUCATION:

Minimum: High School

Desired: College Degree

Courses (High School):

1. Accounting
2. Bookkeeping
3. General Business
4. Business Law
5. Cooperative program involving on-the-job training in a restaurant setting
6. Personnel Management
7. Other management courses

Experience:

Minimum: None

Desired: Cooperative work experience program with on-the-job training

Personal Characteristics:

1. Capable of determining budgets

2. Physical stamina

3. Good health

4. Ability to cope with problems and deal with people

Salary:

$6,000 - 10,000 per year with no experience

$10,000 - 20,000 per year with experience and depending upon restaurant size

HELP ME!
(Should I Switch to Another Company?)

Overview

This OCCUPAC gives students an opportunity to examine some of the factors--salary, working conditions, fringe benefits, personal happiness, etc.--which must be considered when an individual is faced with the decision, "Which job should I take?"

The problem of Jim Watson is presented on the tape. Jim has to decide on whether he will remain at his present job or whether he will take a new job. After Jim has expressed his problem, an interview with an employee from each of the two companies that are offering Jim a job is presented. These two employees tell what they do and how they feel about their work and their company.

The OCCUPAC contains brochures and leaflets from the three Chambers of Commerce from the three cities in which Jim might live. Three students should be selected to act as Chamber of Commerce representatives. These students should use the leaflets and brochures to obtain background information for an oral presentation that they will make on the virtues of living in their respective cities.

A student note taking form is included in the OCCUPAC.

It is called HELP ME! (Should I Switch to Another Company?). The student should use this form to take notes while he is listening to the tape and to the Chamber of Commerce speakers.

After class discussion on the case has taken place, the students should be given the decision card on which they can record their vote for the choice they think Jim Watson should make.

In summary, activities should take place in the following order:

1. Teacher and class decide upon three Chamber of Commerce speakers and the speakers are given time to prepare their presentations.
2. Teacher passes out "HELP ME!" note taking form to each student.
3. Teacher plays tape which gives statement of the problem and presents interviews with an employee of the Denver company and the Decatur company.
4. Chamber of Commerce representatives give their presentations.
5. Class discusses the problem.
6. Teacher passes out "Decision Card" to each student.
7. Class members use "Decision Card" on which to record their vote for the decision that they think would be best for Jim Watson.

HELP ME!

(Should I Switch to Another Company?)

Materials and Equipment Needed

1. Tape recorder
2. Cassette tape from HELP ME! OCCUPAC
3. HELP ME! note taking forms
4. Decision cards
5. Brochures on Charleston, Illinois; Decatur, Illinois; and Denver, Colorado

Tape Script

Hi. I'm Jim Watson. I am presently living in Charleston, Illinois. In fact, I have lived here all of my life. I am very happy in Charleston, except I am very dissatisfied with my work--actually I should say with my boss. My boss infuriates me.

You see, I work as a traveling salesman for the Ski Hi Luggage Company. Each year I am provided with a new car and an expense account because I travel within a 400 mile radius of Charleston. My boss arranges my travel and lately he has arranged for me to be on the road much more than at home. This means that I spend much of my time without my family. When I am not traveling my boss comes to the office late and thus I have to do much of his work such as answering his phone calls. And who do you think all of the credit is given to? Not me, that is for sure.

This certainly isn't all that is wrong. Mr. Murray, my boss, gives my secretary work to do because, so he claims, his secretaries are overflowing with work. But what about my secretary? Yes, you can just imagine--she is unable to do my work. In turn, I fall behind.

Do you think this is all? No, it certainly isn't. Mr. Murray isn't too polite. He never makes a request in a polite manner. Instead, he orders (I can hear him right now) "Watson, get on that phone and call Pinkerton!"

So, this is my situation. I have sold Ski Hi Luggage for ten years. I do my job well. (Of course, I am not praised.) I earn $16,000 a year including commissions but my relationship with my boss is causing me to dislike my job with the Ski Hi Company. Therefore, I have been interviewing with a few luggage companies.

The John Lindbergh Luggage Company has offered me a job in Denver, Colorado and Astro-Way Luggage Company has offered me a position in Decatur, Illinois. My problem is I am undecided. I do not know whether to move or remain in Charleston.

I am presently receiving three weeks of paid vacation which I have worked hard to have. All of my friends and relatives are here in Charleston. And the country club--I certainly would not like having to leave my golf partners. My children like the Charleston schools. I don't think I would want to move them away from their friends. My wife is active in church groups. She also enjoys bridge and is a member of a bridge club. And then there's our home that we are so proud of. As you can see, it would be hard to leave Charleston.

You might be thinking, "Why doesn't Jim Watson find another job in Charleston?" Well, you must understand that Charleston is a small community of 15,000 people. It would be difficult finding a job requiring a traveling salesman. In fact, I have looked and looked . . . there isn't one company in need of a traveling salesman. Staying in Charleston means working for Mr. Murray.

Last week I talked to someone who works for Astro-Way Luggage in Decatur and I talked to someone who works for John Lindbergh Luggage in Denver. Here is what they had to say about how they felt about what they do and how they felt about their companies.

Hello. I'm Chad Stevens. I live in Decatur, Illinois and I work for Astro-Way Luggage Company--a fast-moving, new, different, and exciting business.

Astro-Way has been in operation only one year. The company is looking for eager, hard-working traveling salesmen who will build Astro-Way's name and make Astro-Way the best name in luggage.

Although Astro-Way has been in business only one year, sales have been tremendous. Since it is a new company, the firm offers many promotion opportunities.

Astro-Way traveling salesmen receive two weeks paid vacation after one year of work and after five years of work they receive a three-week paid vacation.

Company fringe benefits are excellent. Medical insurance and life insurance are both provided and you receive 10 days of sick leave per year.

Since Astro-Way is a new company, it does not pay an employee's moving expenses.

The company's traveling salesmen travel within a 350 mile radius of Decatur. Therefore, salesmen are provided with a new car each year. Each traveling salesman also has an expense account to be used for meals, motel rooms, and gasoline.

We have one central building which is located on the outskirts of Decatur. This building is fabulous. In fact, a number of newspapers and magazines have written feature articles about Astro-Way. The building is large and is built in a circular formation. The circular formation is rather symbolic. You see, our luggage is not square or rectangular as is most luggage. It is circular in shape.

The owner of Astro-Way has a new philosophy about work. He believes that employees need time for relaxation. That is his reason for constructing a swimming pool and tennis courts. If an employee feels tense, he is able to relax by taking a swim or he can do his work while basking in the sun.

Jim, you asked me what salary I thought you would get if you came to Astro-Way. For a man with your experience, your salary would be about $14,000 and this would include commissions.

This in general is what it is like to work for Astro-Way.

Hello. I'm Mr. Whitehead. I work for the John Lindbergh Luggage Company in beautiful Denver, Colorado. I supervise the traveling salesmen and I would like to tell you about the company and what the company expects of its traveling salesmen.

The John Lindbergh Company is a well-established company. In fact, the company has been in business for seventy-five years. The John Lindbergh Company is located in the heart of downtown Denver. Let me tell you about some of our special features.

First, the company pays a new employee's moving expenses no matter how long a distance. There are six branch offices in the United States and oftentimes our men are transferred. We also pay moving expenses when men are transferred.

The company provides excellent benefits such as life insurance and medical insurance. Employees receive

15 days of sick leave per year.

After working one year, employees receive a one-week paid vacation. Then after two years of work an employee receives two weeks of paid vacation. Employees receive three weeks of paid vacation after they have worked for the company five years.

A traveling salesman for the John Lindbergh Company travels in a 250 mile radius of Denver. You will find that when you work for our company you will be able to spend many of your evenings at home with your family because our salesmen do cover less territory. Our sales are so high that many of our regular customers phone in their orders and you do not need to call upon them. We provide each salesman with a new car every other year.

Each salesman has a company expense account. This expense account covers meals eaten while traveling, motel room bills, and gasoline used.

The John Lindbergh product has the highest sales of all luggage on the market. Business has been booming. Bonuses are given to traveling salesmen semi-annually. Each bonus ranges from $1,000 to $2,000. You would start off at a salary of around $12,000.

The John Lindbergh Luggage Company sponsors dinners for special occasions such as our Valentine's Dinner and our Christmas Dinner. Both husbands and wives are invited.

The men always look forward to spring and summer because the company sponsors a spring and summer golf outing. After golfing, a delicious dinner is served.

During the months of April through September, our employees work only one-half day on Friday. However, they start work one-half hour earlier each morning.

Probably most appealing is the John Lindbergh Ski Card. This card entitles our employees and their families to ski free of charge whenever they desire at the Aspen Ski Club.

Yes, I, Jim Watson, am faced with a problem. You've heard from two people who are employed by the companies who have given me job offers. However, I want you to hear what the Chamber of Commerce representatives have to say about their cities. After you have heard these representatives, please help me make a decision.

HELP ME!

(Should I Switch to Another Company?)

You are going to help Jim Watson make a decision on whether he will remain at his present job in Charleston, Illinois, whether he will take a new job in Decatur, Illinois, or whether he will take a new job in Denver, Colorado. You are going to hear a tape on which you will hear Jim Watson tell about his problem. You will hear an employee from the Decatur company and the Denver company tell about what they do and how they feel about their work and their companies. Then, one of your classmates will represent the Denver Chamber of Commerce; one will represent the Decatur Chamber of Commerce, and one will represent the Charleston Chamber of Commerce. Each will try to sell you on the idea that it is nice to live in his city. Take some notes on salaries, fringe benefits, working conditions, type of community, etc. so that you can

HELP JIM WATSON MAKE A DECISION

Ski Hi - Charleston	Astro-Way - Decatur	John Lindbergh-Denver

MRS. ZIP, ZIP, ZIP

Overview

This OCCUPAC is designed to help junior high school boys and girls understand the multiple roles that are played by the married woman who works outside her home. There are two activities in the Mrs. Zip, Zip, Zip OCCUPAC and both activities are intended to be used in a group instruction setting.

The first activity is a slide-tape presentation on the working wife. Since the slides are meant to be shown to the group, the instructor will have to make arrangements for securing the necessary projector and screen. The slides are numbered and a beep tone on the tape indicates when a new slide should be shown.

The Activity 2 tape contains interviews with three married women who work. Discussion should follow these interviews. Appropriate discussion questions have been included in the teacher's manual and the same questions are presented to the students on the tape.

The projected work autobiography is intended for use on an individual student basis. The teacher may choose to distribute this form after Activity 1 has been presented or he may choose to distribute the form after both Activities 1 and 2 have been completed.

MRS. ZIP, ZIP, ZIP

(Women in the World of Work)

Activity 1

Materials and Equipment Needed

1. Tape recorder
2. Tape # 1 from Mrs. Zip, Zip, Zip OCCUPAC
3. Set of slides
4. Slide projector

Vocabulary

1. day care center
2. multiple role
3. multiple role families
4. role

Tape Script

Hello! Would you believe that the song you are listening to was once at the top of the record sales lists? Do you have any idea in what year this song was popular? If you guessed the 1920's, 30's, or 40's, you are wrong. The name of this song is "Where the Black-Eyed Susans Grow" and it was one of the hits of 1917. Perhaps these songs will get us in the proper mood for thinking about what life was like in this era. Specifically, let's think about what life was like for women fifty years ago. Let's get even more specific and think about what life was like for the woman who worked outside her home. What jobs did the working woman perform in 1917? Think about this while we listen to another great hit of 1917. (Play Huckleberry Finn)

Some of you may already be conjuring up pictures of the matronly woman sitting behind her desk fiercely typing away on a big black typewriter. Others of you may see the old-maid, school teacher type primly standing behind her desk. If you have these images of the working woman of 1917 you may be very close to the actual facts about the working woman of that era. For the working woman of 1917 was very likely to be single and was very likely to be employed in teaching and office occupations. Fifty years ago you would have seldom found a married woman who held a job outside her home and a married woman with children who worked outside the home was practically unheard of.

And there were reasons why there were so few working women. Much of their time had to be spent in the home caring for their families. Picture an age when there were no refrigerators, maybe even no electricity, no frozen foods, few dry cleaning and laundering facilities, few drive-in restaurants where you could secure prepared food to take home, few families had automobiles--all these things helped add to the fact that many people believed that "a woman's place is in the home." But the times have changed. (Play hard rock)

Yes, the times have changed and today, more than half of all wives are working outside the home. Women are fulfilling the roles of wives, mothers, and workers. With so many women working outside the home, a new term has come into our vocabulary which describes a person who fulfills many roles. (Beep) We say a person is fulfilling multiple roles.

Are women the only ones who fulfill multiple roles? (Beep) Of course not, men are husbands, fathers, and workers and thus they fulfill multiple roles. (Beep) Since both men and women fulfill multiple roles we have multiple role families.

Let's talk about multiple role families. In days gone by it used to be that the husband was the breadwinner and the wife was the homemaker. (Beep) Household duties were divided on a sex-determined basis. Wives cooked, washed, ironed, cleaned the house, and took care of the kids. Husbands hung the storm windows, mowed the lawn, cleaned the basement and garage, and did the necessary painting and repairing. However, when women began to be employed outside the home, some changes occurred in the organization of the family. (Beep)

Today more and more families in which the wife works are dividing up responsibilities not on the basis of sex but on the basis of skill, preference, time available, etc. Men today do many household tasks that were formerly considered women's work.

Who are all the working women? (Beep) It used to be that only "old maids" worked and most people felt sorry for them. Now, the picture has really changed. Just look at some of these facts: (Beep)

One-third of all workers in this country are women. (Beep)

More than half of all part-time workers are women. (Beep)

It is estimated that nine out of ten girls today will be gainfully employed at some time during thier lives. (Beep)

Of all married women living with their husbands, over one-third work either full or part-time. (Beep)

Why do women work? (Beep) Married women work to help boost the family income. They may want to have money to provide more education for their children and they just may want money to buy more goods and services for their family. Married women also work because many labor-saving devices have been created which shorten the amount of time needed to do household work. Prepared foods and frozen foods have certainly cut down on the time needed for food preparation. But an increasingly important reason for working is the personal satisfaction or achievement that comes with holding a job outside the home.

This is not saying that housework cannot fulfill needs for satisfaction and achievement. However, housework alone cannot fill the needs of some women. Some women have talents that they would like to use outside the home. These women are probably happier and help create a happier family atmosphere than if they worked in their homes only.

When do married women work? (Beep) Married women often work when they are newlyweds and until the first baby arrives. Sometimes mothers begin work for the first time when the children are almost grown. An increasing number are working even if they have small children. They are co-breadwinners in a two-paycheck family. Older women make up an increasing proportion of the labor force. Five out of ten women workers are 40 years of age or over. Women also work when there is a financial crisis in the family but more and more women work when there is no financial crisis.

This next fact is one that often starts young people thinking about their work lives. About half of you will be married by age 20 and you will have your last child by age 30. (Beep) By the time the youngest is in school, you may be around 35. People now are living around an average of 75 years. This leaves approximately 40 years of life left after your last child starts school. Girls, what are you going to do with your time during those 40 years? Fellows, what will your wife do during those 40 years?

What happens when a mother works? (Beep) Two major changes will take place. First, competent child care help must be secured. Decisions relative to child care should be worked out mutually by husband and wife. Sometimes a decision is made to have child care help come to your home.

Recently, legislation has been passed to assist in the development of day care centers for working mothers. (Beep) These centers will be staffed by people trained in the care of children. Other facilities away from home may be secured. Some women take care of children in their own homes and private nursery schools are available in some localities.

When a mother works the father will undoubtedly assist her in caring for the children. (Beep) Fathers may help with such activities as bathing and feeding children. Many fathers enjoy these experiences and they get to know their children better than when they did not participate so heavily in the care of their children.

Fellows, you're likely to get soap suds on your elbows and furniture polish on your hands if your wife works. But then, that isn't too big a sacrifice if you have a happier wife and more money to take care of your family's needs.

This next information is directed to fellows but girls you can listen too. The biggest job you have in assisting a working wife is not helping her do household duties. Your biggest job is to project an attitude that is supportive of a wife's desire to work. You're probably thinking, "It'll be many years before I have a wife." My answer to you is, attitudes are not shaped over night. You probably already have some attitudes toward women who work.

I bet while you have been listening to this tape that you have been shaking your head from side to side or nodding your head up and down as various facts have been presented. Ten years from now if you have the attitude that "a wife's place is in the home" you may have a rough time having a happy marriage.

Girls, right now a lot of you are looking starry eyed and the only things you can visualize in your future are wedding bells and a cozy house in some nice area where you've always dreamed about. The facts just do not bear out this kind of a future for you. Many of you *will* be working and you will want a husband to be supportive of your efforts to work outside the home. Do you want a husband who feels threatened because you bring home a paycheck? Do you want a husband who does not see himself helping you with household duties? If you marry before you have completed your education, do you want a husband who does not want you to go back to school so you can get more education and thus be able to obtain a job?

Fellows, some of you will not only be husbands but someday you will be in a position to be an employer of women. What kinds of attitudes will you have toward women employees? In the past, some of these attitudes have been projected by employers of women. Will you have these attitudes? (Beep)

Women do not need the higher income received by men.

> Women cost more to employ because there is a greater absence rate of women.
>
> Women cost more to employ because there is a high incidence of job turnover for women.
>
> Women do not produce as much work as men.

Perhaps your wife could work for an employer who projects such attitudes. What will you say if your wife faces these kinds of attitudes when she goes to work?

In truth, each of these attitudes can be challenged by facts gathered by the Department of Labor. Department of Labor statistics show that the absence rate due to chronic illness is no greater for women than men, and, in fact, may in some cases be lower. Factors other than the sex of the worker enter into the problem of employee absenteeism. Turnover of employees is determined more by other factors, such as job level and age, than by sex. No basis exists for the assumption that women's production rates are lower than men's, given the same working conditions. In jobs requiring speed and dexterity, women's production rates are usually higher than men's.

Lower wage scales for women are in no way justifiable. Substandard wages paid to women are a form of exploitation and tend to depress all wage scales, for men as well as women.

It's true that progress has been made in attitudes toward married women who work. But even though some progress has been made, there is still a great deal to be done in helping people understand that some women do enjoy and need to work outside their homes.

MRS. ZIP, ZIP, ZIP

(Women in the World of Work)

Activity 2

Materials and Equipment Needed

1. Tape recorder
2. Tape # 2 from Mrs. Zip, Zip, Zip OCCUPAC

Tape Script

Another way we can look at this "revolution" which has taken place in the old "housewife-career girl" division of women--a woman used to be either one or the other, not both--is to listen to some typical employment situations that face young married women today. This tape contains interviews with three women who tell about their employment situations. As you listen to the tape, ask yourself these questions. I will go slowly because you may want to write these questions on a sheet of paper. (Pause)

1. When do women make occupational decisions?
2. Why do women work? Listen for examples in the interviews.
3. What types of personal, social, or economic stresses and strains may arise when married women seek employment? Example: It may be necessary for husband to babysit with his children while his wife works.

CASE #1

(Ann describes her employment situation by first telling something of her background.) "You know Jack and I were married soon after we graduated from high school. Jack got a job at the local automobile assembly plant and earned a good salary and didn't want me to work. We started our family soon after we were married since we both wanted a big family. We have four children; the baby is only two years old. Then last year Jack was hurt in an accident at the plant and couldn't work any more. Although Jack's paycheck was no longer coming every two weeks, we were not left without income. There was the Workmen's Compensation payment (a system of insurance required by state law and financed by employers, which provides payment to workers or their families for occupational illness, injuries, or death resulting in loss of income) and some money from our own insurance policy. However, we had to face it--our income wasn't enough to support the family."

"Luckily there's a good day-care center near our house. I found out they would take care of the baby during the day, when the older children were in school, and then made the rounds of the stores downtown until I got a job--selling children's wear. I know plenty about that! I don't make much for a family our size. We don't have a new car or a new TV set, or a new anything as far as that goes, but at least we're all together--that's the most important thing."

CASE # 2

Mary tells about a different, but nevertheless a typical employment situation which she faces. "Hank and I were married a month after I graduated from high school. He still had two years of college to finish so I got a job as a typist so he wouldn't have to drop out of school. We were married three years before our first baby came. By that time I'd had two promotions and was the private secretary of the vice-president of the company I worked for. When I had to quit work to have our baby, my boss told me to let him know if I ever wanted to come back to work again."

"By the time Judy was four, and we were trying to raise enough money to make a down payment on a house, I called my old boss and asked him if he could find me a part-time job. So I went back to work, filling in part-time at the main office for the girls who were sick or on vacation. Not only did the extra money help, but I kept my skills from getting too rusty. Last fall Judy started first grade, and I found that there really wasn't enough around the house to use up my time and energy, so I took a full-time job with my old employer. I go to work after Judy is in school and she stays at a neighbor's house until I get home in the evening. By working full-time, I feel like I am more than just a housewife--that I am making a contribution to the company that I work for. And we find plenty of uses for that extra paycheck I bring home."

CASE # 3

Ruth explains that her employment situation is somewhat different from the other two girls. "The summer between my junior and senior year in high school I worked as a Red Cross aide in a hospital and decided that I wanted to be a nurse. However, I was afraid that the training would cost too much. After school started that fall, I decided to go to Mrs. Smith, our school counselor, and see if she could help me figure out a way to go to nurses' training school. Well, Mrs. Smith was full of ideas. She told me about scholarships and loans for student nurses and encouraged me to fill out some application blanks. And sure enough, by the time I had graduated I had been accepted by one of the best nursing schools in the state."

"After I finished my training, I went to work in the maternity (baby) ward of a large hospital. I worked there for four years before I quit because Bill and I (we were married the previous year) were going to become parents. Our baby is now two and I have returned to nursing on a part-time basis. I'm on call at the hospital for emergencies when they need a special night nurse in the maternity ward. Bill takes care of the baby at night when I have to go to work."

Now that you have heard the employment situation of these three women, take some time as a group to discuss the working lives of these women.

C-100

"You've Got a Long Way to Go"
A Projected Work Autobiography
for

____

(Circle the answers in parentheses which best describe YOU)

Chapter I

The year is ______ and I am _____ years old. I think I have approximately ____ working years ahead of me. Right now I am mostly interested in ______________________________

____

____

____

In the next 10 years I will spend _____ years in school and I will spend _____ years working at either a part time or full time job. Looking farther into the future, I think I (will, will not) marry at approximately age ____ and that I will have ____ children. My last child will be born when I am approximately ____ years old. For girls: Ten years from now I think I (will, will not) be working. For boys: Ten years from now, if I am married, I think my wife (will, will not) be working. As I look ahead to my work life, the following things bother me about the years that I will spend working ____

____

____

Right now the greatest assets that I have which will help me in the career I may choose are: ______________________

____

My greatest liabilities are: __________________________

____

CHAPTER II

Ten
years
from now!

The year is now ____ and I am ____ years old. I think I have approximately ____ working years ahead of me. Already, I have worked ____ years. So far, I have changed jobs ____ times.

I think that (I am all through going to school, still need to get some more education). I (am, am not) married and I have (no children, begun to think that I may have children within the next 5 years). Right now, my spouse (is, is not) working and I share the following household responsibilities with my spouse:______________________________

____

____

My interests have changed in the past 10 years and now I am mostly interested in ______________________________

____

____

At this point, the following things bother me about my working life and about my family:______________________________

____

____

CHAPTER III

Twenty-five years from now!

The year is now ____ and I am ____ years old. I think I have approximately ____ working years ahead of me. Already, I have worked _____ years. So far, I have changed jobs ____ times.

I think that (I am all through going to school, still need to get some more education). I (am, am not) married and (I have no children, my last child is still at home, my last child has started to school). Right now, I share the following household responsibilities with my spouse:_________________

____

____

My interests have changed over the years and now I am mostly interested in _____________________________________

____

____

____

At this point the following things bother me about my working life and about my family_________________________

____

____

C-104

CHAPTER IV

Thirty-five years from now!

The year is now____ and I am____ years old. I think I have approximately ____ working years ahead of me. Already, I have worked ____years. So far, I have changed jobs ____ times.

I think that (I am all through going to school, still need to get some more education). I (am, am not) married and (I have no children, my last child is still at home, my last child has started to school). Right now, I share the following household responsibilities with my spouse:___

____

____

____

My interests have changed over the years and now I am mostly interested in ______________________________

____

____

At this point the following things bother me about my working life and about my family______________________

____

____